

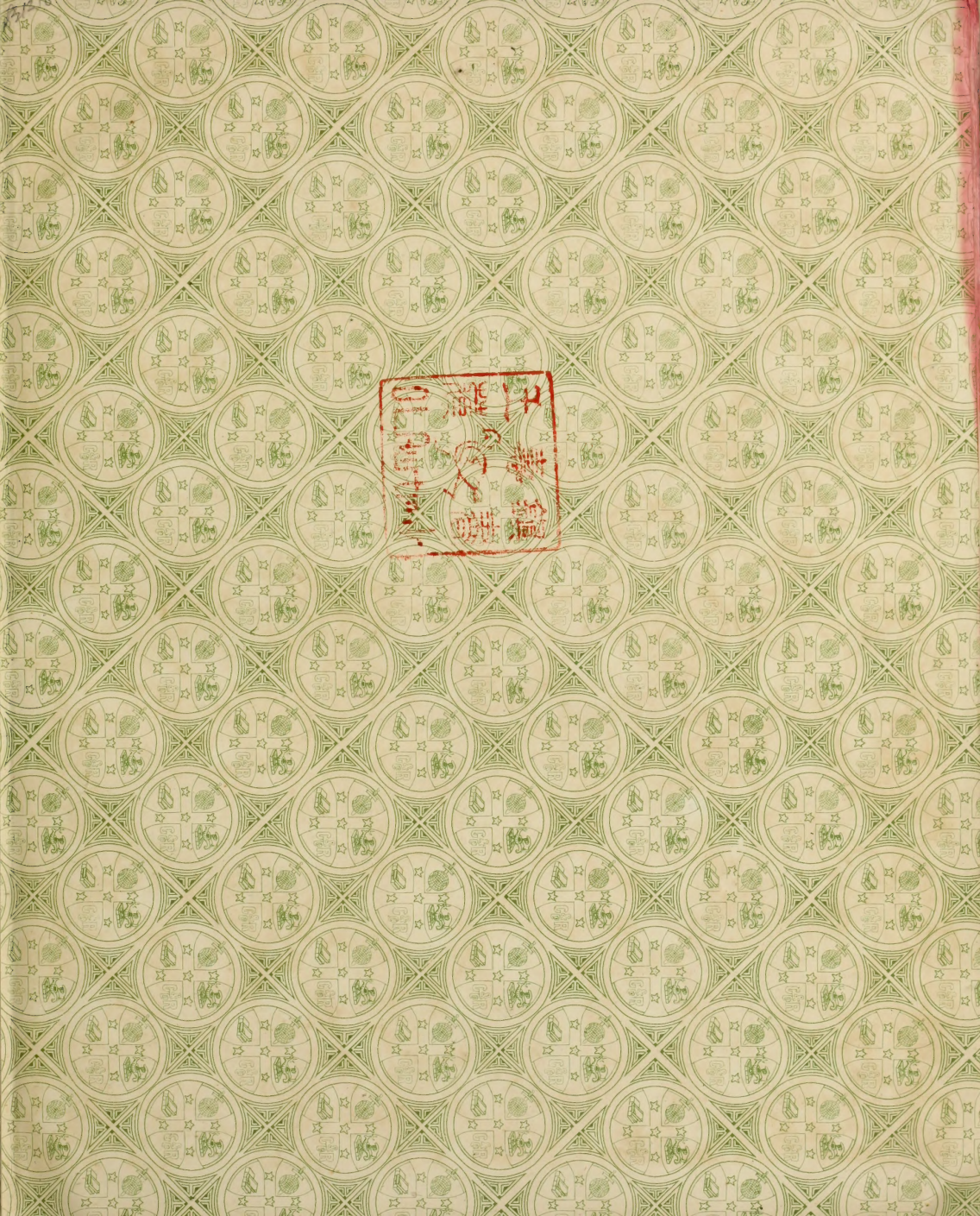
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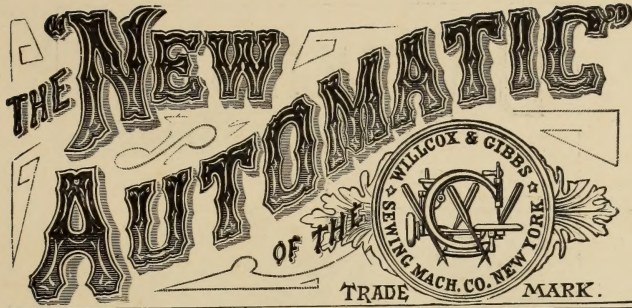
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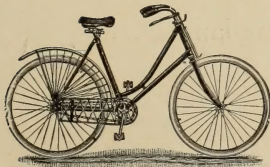
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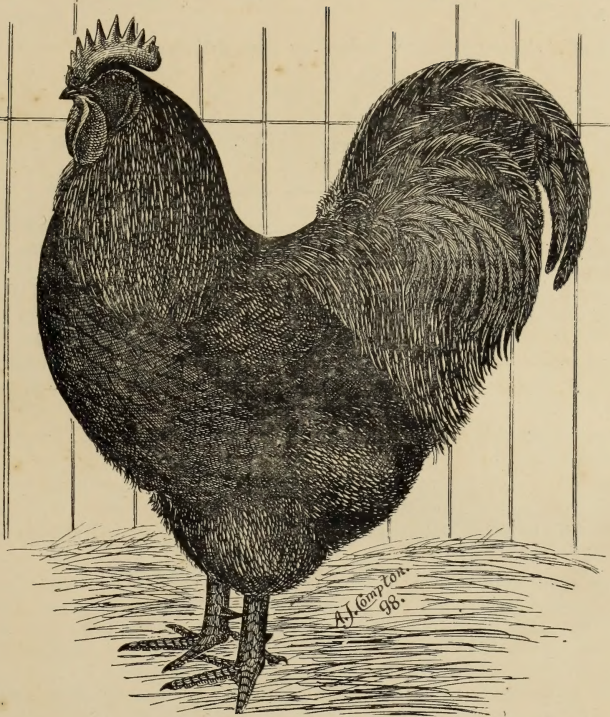
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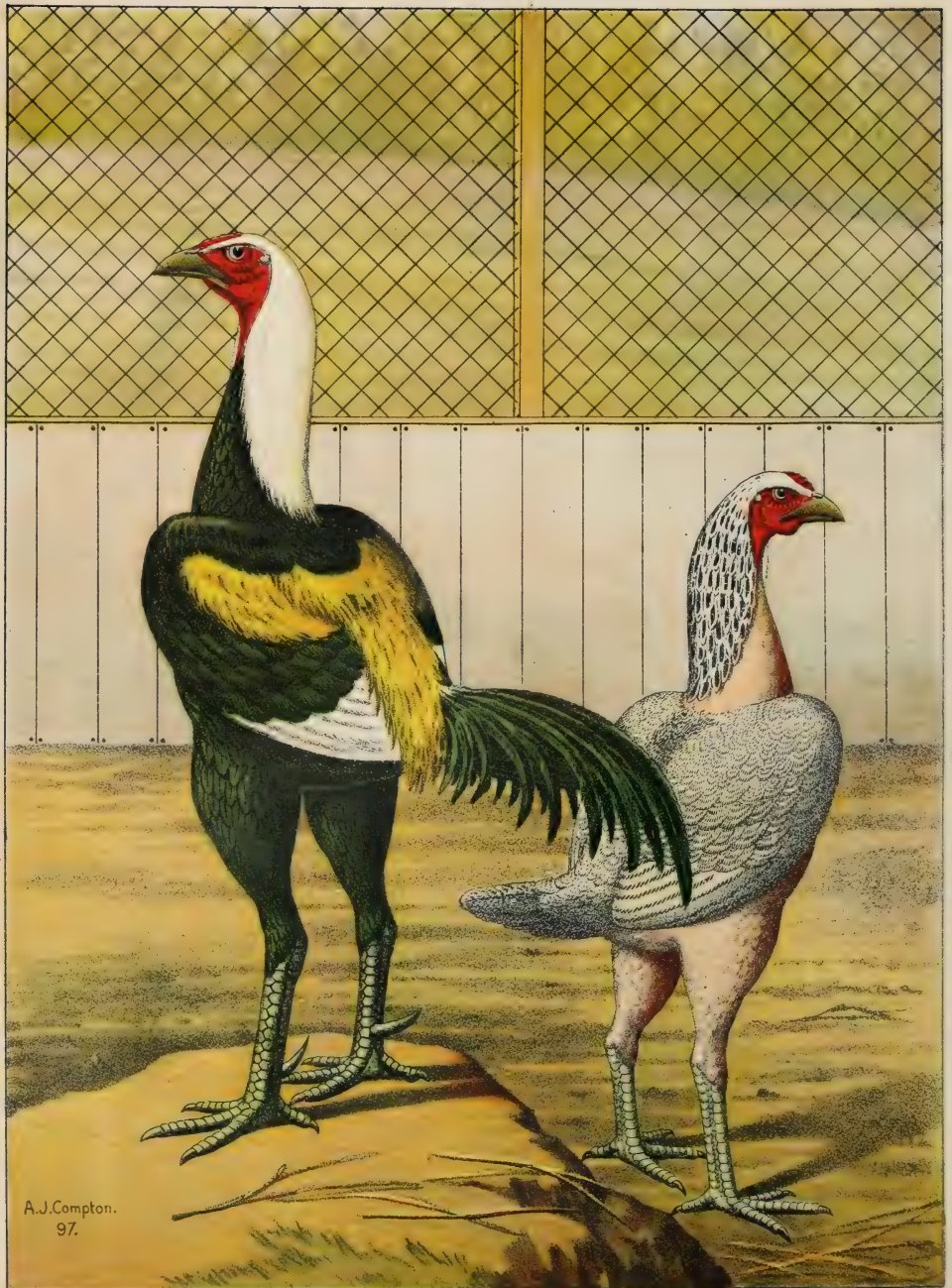
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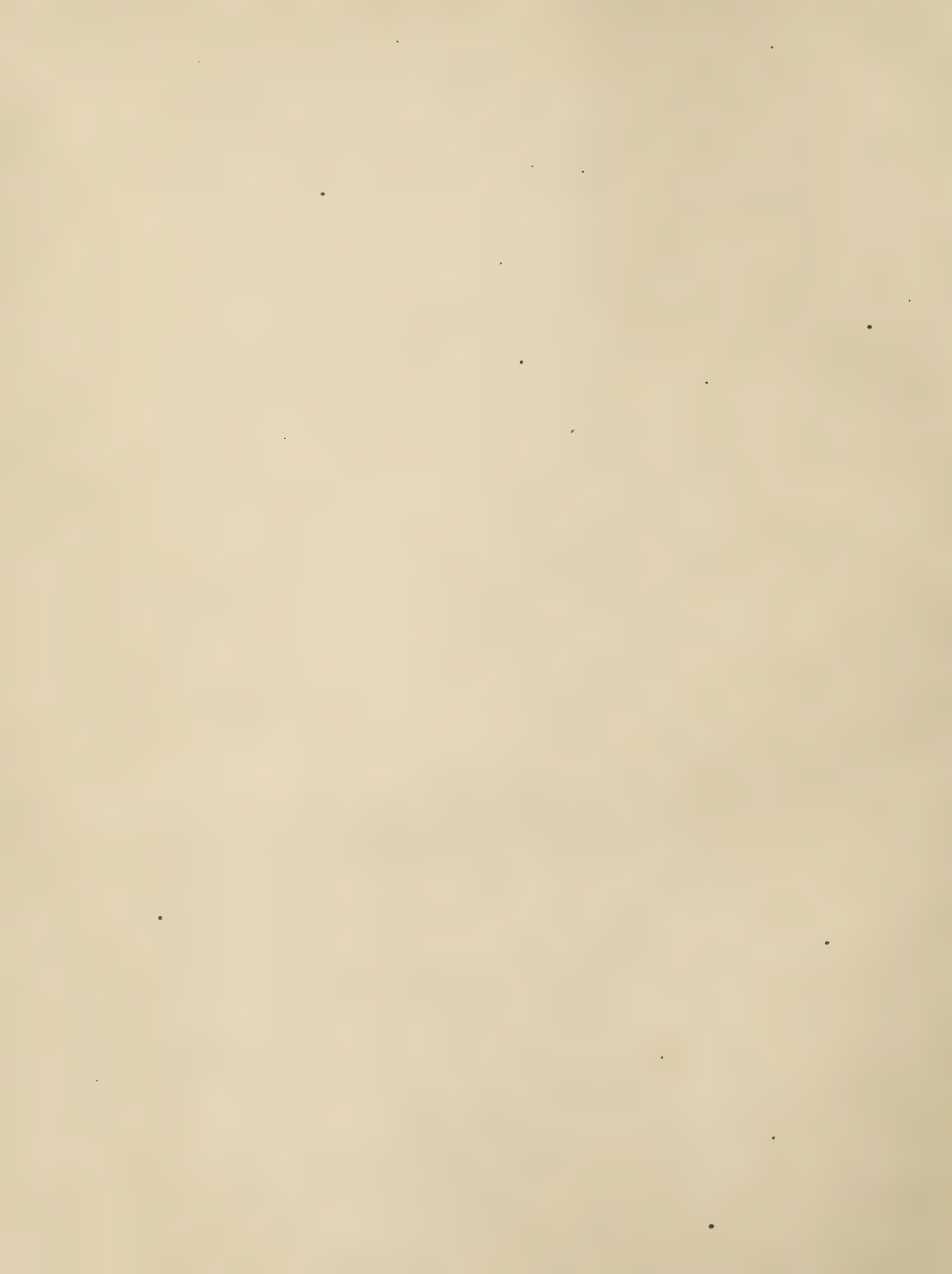
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OF

THE AUTHOR.



PREFACE.

HEREWITH I desire to express my warmest thanks, to the many enthusiastic Fanciers, who have so generously contributed to these pages, and without whose whole-souled co-operation, it would have been impossible to carry this undertaking to a successful issue, more especially to those gentlemen in the various Colonies who are personally unknown to the writer. That they, one and all, have given their actual experience, based on long years of patient study, experiment, and observation, makes the information supplied of the greatest value. Especially are my thanks due to Mr. S. C. Kesteven, of Christchurch, New Zealand; to Messrs. D. F. Laurie, G. M. Duncan, and W. Jolly, of South Australia; to Mrs. Lance Rawson, of Queensland; and to Messrs. H. Huntington Peck, F. Norman, W. Skelton, J. C. Coupe, J. B. Crawford, F. G. Edmondson, and J. V. Smith, of Victoria. Brother Fanciers also, in this, the mother colony, are fully entitled to the writer's most grateful indebtedness for the sound, practical, and absolutely reliable information afforded, which should in the near future, and for years yet to come, considerably assist in guiding many young and aspiring Fanciers' footsteps towards the goal of their ambition.

The Engravers have executed their work in a most efficient manner, and the Publishers' (Messrs. Geo. Robertson & Co.) aim throughout, has been to produce the "Australasian Book of Poultry" right up to the highest standard of excellence.

Again thanking one and all for the many kindnesses tendered, which, I feel certain, have been prompted solely by the good fellowship existing in the "Brotherhood of the Fancy," and though now finally taking leave of my engrossing subject, I do so with a feeling of regret.

Yours faithfully,

THE AUTHOR.

"BEVERLEY,"
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INTRODUCTION.

THE subject treated in this work is now fast becoming a question of national importance, and one possible of great extension. Happily situated, as we are, in this Southern Hemisphere, blessed with such favourable climatic surroundings, Poultry, in its varied forms, should do exceedingly well; and feeling that the public required more up-to-date information on the general management and breeding of Poultry, applicable to Australia, than that procurable from available Poultry literature, is the excuse offered for the appearance of these pages. With this object in view, it is certain that the subject matter contained in the *Australasian Book of Poultry* will give its readers useful, practical, and reliable information, which should act as an incentive to the furtherance of a much neglected industry in Australia.

The highest and best authorities in the Australasian Colonies on Poultry—experts, specialist breeders, and exhibitors—have contributed their knowledge and experience of the various breeds, and this is confidently placed before the general body of embryo Fanciers, and those interested in matters appertaining to Poultry, which should be of incalculable aid to beginners.

The illustrations, in many instances, are representations of actual living Australian specimens, and should do much to encourage and stimulate the increasing interest now displayed on all sides concerning pure-bred Poultry.

The schedules and standards for judging here given are of the most recent date, the different Specialist Clubs' standards and descriptions being availed of, so that on the best and most adequate authority, they can be accepted without doubt, and made the real, sound, and solid basis for judging show specimens.

In committing the *Australasian Book of Poultry* to lovers of this section of the feathered tribes, the author feels confident the information contained will be of practical use to the thousands interested outside of actual POULTRY FANCIERS; and, while conscious that it does not contain a complete answer to each and every question that might and could be asked on the subject, he still ventures to hope that it will prove a useful, reliable, and welcome addition to Australasian Poultry literature, and then his success will have been complete indeed.

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THE AUSTRALASIAN BOOK OF POULTRY.

CHAPTER I.

HOUSING AND GENERAL ACCOMMODATION OF POULTRY.

THIS subject is of paramount importance if success in keeping Poultry is wished for, though Fowls can thrive and do well in very limited space, and with the simplest and most inexpensive surroundings, if kept perfectly dry and free from draught. It must be borne in mind that Fowls are very much akin to human beings in not being constituted to inhabit evil smelling, draughty, or badly drained dwellings, and retain health and appearance. The majority of the diseases Poultry are liable to can be distinctly traced to one or other of the causes mentioned, and it behoves all who have the well-being of Poultry at heart to remember the foregoing.

In housing, the essentials to the welfare of the birds are: Avoid *overcrowding*, provide proper ventilation and good light (as Fowls are distinctly averse to occupying a dark or dismal domicile), see that they are well protected from the excessive heat experienced in these Southern latitudes during the summer, and from the wind and rain. These precautions taken at the outset, and combined with cleanliness and care in feeding, will ultimately bring their own reward.

It is not necessary to plan and build elaborate and expensive houses, and, in fact, they are not desirable for many weighty reasons, and to anyone possessing health and strength, combined with a little knack and energy, the profit and pleasure derivable from themselves planning and building their own fowl-houses, will amply repay for the trouble, and it does not require the ability and qualifications of an architect to design a useful lean-to house or two, which will answer, in the majority of cases, where only a few birds are kept.

In keeping the feathered-leg varieties—such as Cochins or Brahmas—dry runs as well as dry houses must be provided, otherwise the foot feathering will quickly get out of order, and the appearance of the birds will be more or less sacrificed.

Where a few birds are kept for home requirements,—eggs, and an occasional chicken for the table—a simple and inexpensive lean-to house, erected against a fence or wall, will generally answer all purposes, and if built of wood, with roof of the same material or galvanised iron, will provide good and comfortable quarters for the inmates. Any person handy with tools may in a few hours build a creditable house with a few battens for the frame, a couple of good-sized packing cases, a few feet of wire netting, and some one and two inch wire nails, and one that, when lime-washed occasionally, will look respectable. It is also advisable to erect an open shed, attached to the side or front of the house (in the most convenient position), for the birds to resort to in windy, rainy, or hot weather, as fowls have an extreme dislike to occupying the roosting house in the daytime. *Fig. 1 is of simple construction, and very easily erected, showing a small shelter shed at the side.* Where possible a northerly or north-easterly aspect is best suited for this climate, as the sun assists considerably in keeping the house sweet and dry.

The Australasian Book of Poultry.

For a few every day common hens, or birds of the heavier breeds, perches made from wooden poles such as those used to roll linoleum on, about 6 feet in length (which can be obtained from any furnishing house or drapers), sawn in halves lengthways, and used round side uppermost, will be found the most inexpensive and convenient form of perch procurable; or saplings, three to four inches in diameter, cut in the same manner, will do equally as well. For the heavy breeds the perches should not be placed higher than from 12 to 18 inches from the ground; but for the lighter varieties—such as Hamburgs, Andalusians, or Leghorns—the height may be increased to three or four feet, and the perches made thinner than those used for the larger breeds. Great

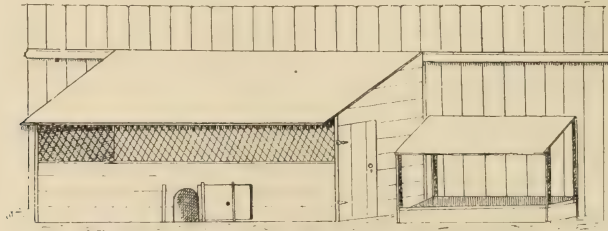


FIG. 1.—Lean-to House, showing small Shelter Shed at side.

care must be exercised in keeping the roosts or perches free from parasites, and an occasional application of kerosene oil, or a teaspoonful of Calvert's No. 5 Carbolic Acid, diluted with twenty times its bulk in water, applied to the roosts, will act as a certain preventive of these troublesome pests; and if the floor and nests are sprinkled now and again with the latter mixture, the effect will be highly beneficial.

In arranging nests for the hens to lay in, a good plan is to make them on the floor of the house; the earth for the bottom, which should be scooped out a little, a strip of wood, four or five inches in height, nailed along the front at the bottom to the two or more upright divisions, the latter about 18 inches in height

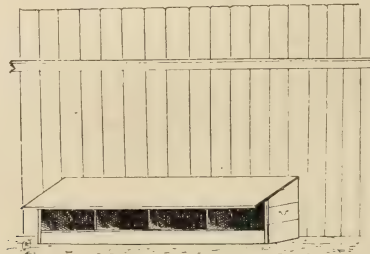


FIG. 2.—Portable Nest Boxes, without bottoms or backs.

at the front, and 24 inches at the back. This, with boards nailed along the top forming a roof to project three or four inches over the front, will be found to make a complete set of nest boxes—the side, front, or back of the house forming the back. This can be placed inside or outside the domicile, under the shelter shed, or even against the fence in the most convenient position in the yard. Fig. 2 will give an idea of this portable form of nest boxes, which have the advantage of being easily and effectively cleaned, having no backs to them. It is without exception advisable to provide the nests with earthenware nest eggs, and to remove the eggs laid as soon as convenient, as frequently a breakage occurs, and nothing induces fowls to

develop and contract the pernicious habit of egg-eating quicker than carelessness in this respect. The floor of the house may be of concrete, sifted ashes, or sand. If the former, a sprinkling of sand will be found the easiest method of keeping it clean, which can be swept or gathered up easily and quickly; if of sand or ashes, a raking over after cleaning operations will put things in order. We incline to the latter plan, as the

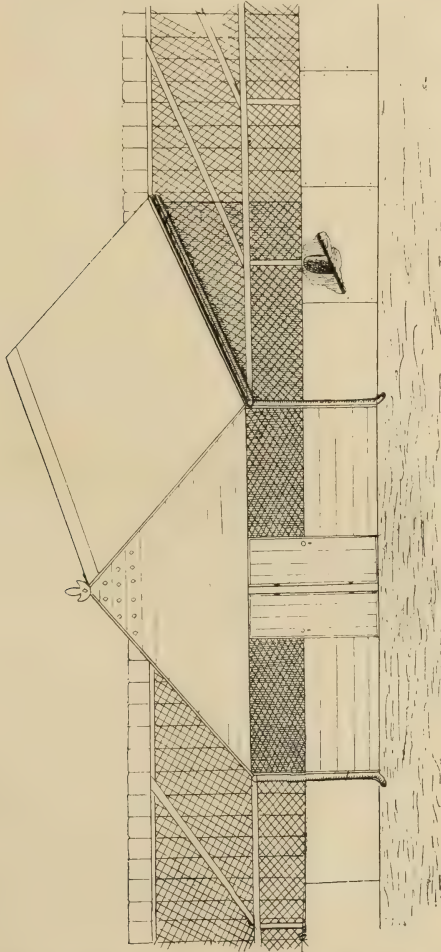


FIG. 3—Houses and Runs for the Separate Accommodation of Breeding Stock and Chickens.

floor can be entirely renewed at intervals with but little trouble, and can always be kept sweet and wholesome; but whichever plan is followed, cleanliness must be observed by removing the droppings at least twice a week, or daily if possible, and it will be found that a few minutes devoted daily in attending to this matter is the

best plan of all, and if a flower or vegetable garden is attached to the home, nothing need be wasted, as the droppings are of the greatest value for manuring purposes.

As galvanised wire netting, two-inch mesh, is supplied at such a low price, there should be no reason why the birds should not be confined within reasonable limits, thus securing their owner from the annoyance of hunting the neighbourhood for the vagrants, and obviating the possibility of the birds being lost altogether, besides preventing neighbours from being worried by the birds' unwelcome visitations. For Cochins, Malays, Dorkings, etc., an ordinary six-foot paling fence will keep the birds within bounds; but for the lighter and more active breeds, such as Hamburgs, Leghorns, etc., six-foot netting above the fence will in most cases be required, unless the birds' wings are cut. This is objectionable in many ways, and often quite spoils their appearance.

In treating the subject of Fancy Poultry, where a few birds are reared annually for Show purposes, or even if it is desired to rear a few chickens for home consumption, it is advisable to provide houses and runs for the separate accommodation of the adults and chickens respectively, and if a grass run, however small, is available, the benefits that the birds will derive from this source is incalculable. *This latter is not positively necessary*, but is a valuable adjunct to any Poultry yard. In rearing chickens it has been proved that they rarely do as well as wished if allowed to mingle with the adult stock. An excellent plan of management is to build two houses adjoining, one used exclusively for the breeding stock, and the other devoted to the entire use of the chickens. This will apply to the handling of one variety of Poultry if not kept in too great

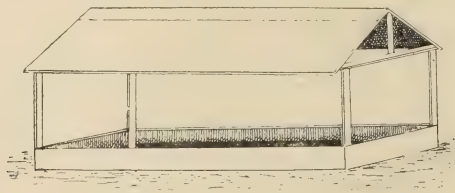


FIG. 4.—Combined Dust Bath and Shady Resort for Fowls.

numbers, and if the yards are swept out thoroughly and frequently it will in a great measure prevent the ground from becoming sour and unwholesome. Fig. 3 shows an excellent system where a few birds only are reared.

One plan suggested by Poultry writers in other countries is to have the floor of the house raised above the ground to a height of three or four feet, the space underneath providing shelter from the sun and rain. For our climate (excellent as the idea is for colder countries) we do not favour this plan at all, and prefer to have a lean-to shed attached to the house, or to erect in the centre of the yard or run a roofed-in space, open at the ends and sides, with 12-inch boards nailed all round the bottom of the uprights supporting the frame and roof. This provides good shelter and a dust bath at the same time for the birds, and will assist considerably in preventing the visitation of vermin, which, however, should be encouraged to an alarming degree if the first were adopted. Fig. 4 is a combined dust bath and shady resort, which should be made in accordance with the number of birds kept in the yard. Fruit trees kept trimmed also provide good shelter from the sun, and at the same time are an ornament to the run; and as those trees could be chosen for the purpose which are devoid of leaves in winter, they would serve a twofold object in minimising the power of the sun's rays in summer, and not interfering with the benefits derivable from the same source during the winter months. We strongly recommend the planting of trees where at all possible, trees planted judiciously assist considerably towards improving the appearance of a Poultry yard.

Much larger and more complete accommodation will be compulsory if a fair measure of success is anticipated in exhibiting, or if good results are anticipated in the form of sales of young stock, eggs, etc., and in designing plans the shape and size of the land available must be considered, especially if a grass run is in-

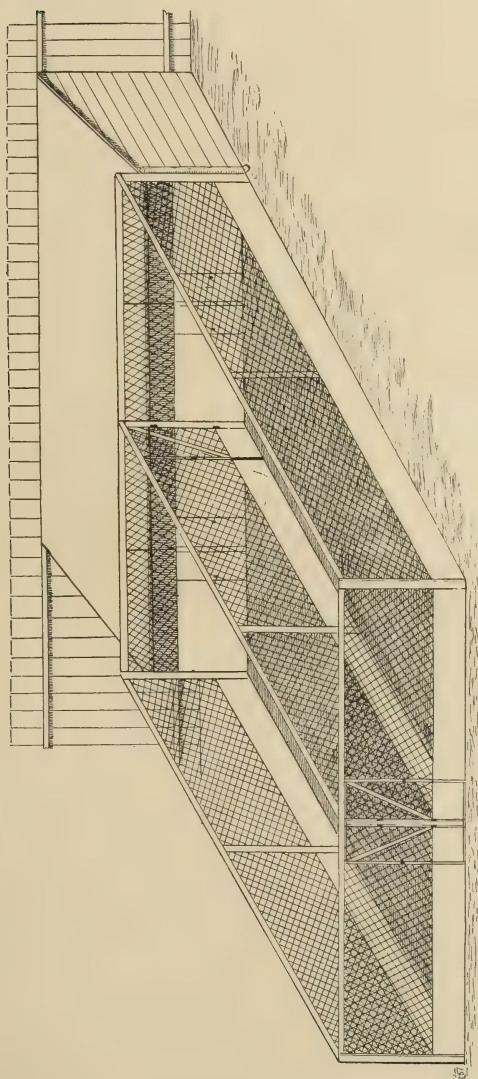


FIG. 5.—Pens for the accommodation of Breeding Stock, with two grass runs attached, available by the occupants of the different pens alternately.

tended to be kept separate from the breeding pens, access to which it may be desired the various occupants of the pens to have alternately. Fig. 5 will illustrate how one or two grass runs may be provided available by four or more pens of breeding stock in turn. One of the runs could be held in reserve, and thrown open on the other appearing bare or brown. The latter could thus be given a rest. By this method, providing the space at command is of reasonable size, a fresh grass run can always be relied upon.

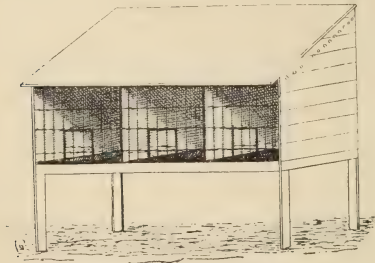


FIG. 6.—Training Pens for preparing birds for exhibition.

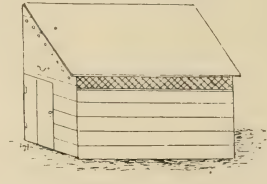


FIG. 7.—Training Pen for cockerel.

Other necessary and most important adjuncts to the keeping of high-class birds for exhibition are training pens, in number according to the number of birds it is intended to exhibit. These can be erected in a simple manner, and in various ways. Figs. 6 and 7 will give different ideas, both of which have their merits, and are adapted for different breeds. If a shed or outhouse is connected with the establishment, the Show coops as used by the Poultry Societies are the best. These are quickly erected, and can be packed up

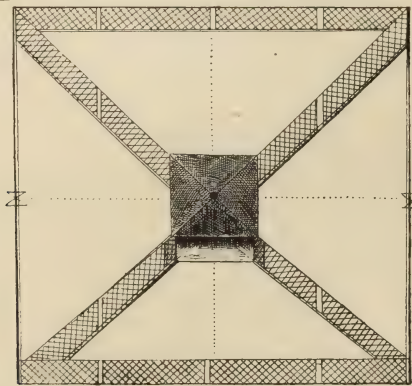


FIG. 8.—Plan of houses and accommodation of Poultry in large numbers.

into a small space after the Show season is over. The cost of this class of coop is trifling, and with care they will last for years.

For breeding and rearing Fancy Poultry on an extensive scale, or for producing eggs and birds in large quantities, Fig. 8 will be found an excellent method, and one easy of management. This system is one which provides the maximum amount of shelter and accommodation for the birds, with the minimum cost of

material and expenditure of time and labour; and if fruit-bearing trees are grown for shade, with a possible return from the fruit thus grown, it will materially assist in making Poultry Farming a profitable undertaking. If the area at command is two acres in extent, this should allow of subdivision into four or eight, 50 head in each if the smaller number of divisions are selected as being the most suitable, and only half that number if the eight divisions are preferred. There is much to be said in favour of the latter (though, of course, the work attached to their management would be considerably increased), as fowls do better in flocks of 25 than in larger numbers. By this system it would require 10 acres to accommodate 1,000 head of laying hens, rather more land being required than is generally quoted by other writers to locate the same number of birds. It will be seen that the ground is not nearly so liable to become foul and unhealthy as if they were kept in a more confined space, and in the end, if profit is the main consideration, the results would be far more satisfactory if the birds are given a good range, such as the space quoted will allow. It is possible to keep for a few years a far greater number on the same area as that given, but necessarily the land would require turning over with the plough every few months. This can be obviated by allowing sufficient land when first starting, and would not interfere with the trees planted or with the grass. Overcrowding is, without exception, the greatest error the beginner in Poultry Farming is likely to fall into, and the baneful effects of this mistake are very great, often causing complete failure.

If the houses are built on the system advised, the nest boxes may be fixed along the dividing walls, using the portable ones described by Fig. 2 in this chapter, the advantages being that they are so readily and easily cleaned, and it is wise to provide sufficient nests for the inmates, economy on this head

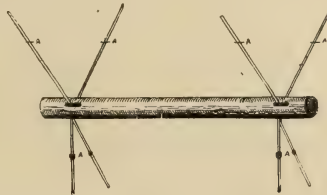


FIG. 9.—Wood and Wire Lice-proof Roost for Fowls.

being a mistake, as with fewer nests the hens are likely to scramble and quarrel with one another, and the eggs will be broken in such numbers that the initial outlay is warranted to avoid this. Poultry are creatures of habit, and the more systematically they are housed, cared, and fed, so much more there is a certainty of profit attached to the enterprise. The perches in these houses should be strong and stout enough, and made and placed in such a manner that there will be no difficulty in removing while cleaning operations are in progress, the ends of the roosts being a favourite breeding ground for insect pests, so that a little attention given this detail will enable the attendant to cope with the difficulty.

Before starting to build Poultry Houses on an extensive scale a simple plan should be designed, and timber, iron, wire netting, etc., purchased in such suitable lengths and quantities as to avoid needless waste; also, provision should be made to have all doors and gates made wide enough to allow a wheelbarrow to pass through easily, thus saving a vast amount of annoyance and labour. To provide water for the fowls, an inch pipe carried through the buildings, with taps at or near the drinking fountains in each compartment, and attached to the supply, whether a tank placed to receive the roof drainage (which is applicable to many positions where no other supply is close at hand), or from any other source, will be advantageous in many respects, and a great saving in time and labour—two weighty considerations in the working of a Poultry Farm of any magnitude.

We can recommend the following plan for the prevention of lice and that worst of all pests, the red mite, which the Poultry Farmer or Fancier will be fortunate if not pestered with in the roosting house or houses. Fig. 9 will illustrate the idea: The roost is made from the ordinary pole described previously in

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this chapter, or from a 1 x 2 scantling, rounded on the edges of the uppermost side. This can be made any length desired, and wire, such as telegraph wire, used for stays and supports. A, greased rags tied to the wire; B, wires attached to the roof or rafters; C, wires to attach below for steadying the roost. As lice will not cross grease or oil, this roost is absolutely louse-proof. The same can be applied to nests fixed in the same manner. An admirable system of laying houses or boxes is described by Figs. 10, 11, 12, combining

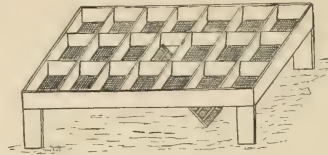


FIG. 10.—Plan of Floor Section, laying houses 8 ft. by 4 ft. 10 in., to contain 14 nests.

the best of secluded nests, with covering from the weather and a shelter shed at the same time, suitable for placing out in the open. These are built at an elevation of two (2) feet from the ground, on four legs, and can be made any size required. If made to contain 14 nests, the size required would be 8 feet x 4 feet 10 inches. The nests are arranged in three rows lengthwise, with an opening 18 inches square in the centre for the hens to fly up from underneath, or walk up the latticed board resting against the aperture, the nests

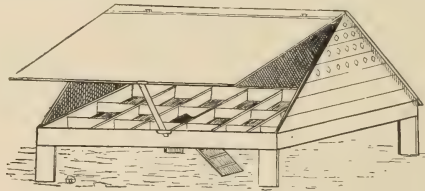


FIG. 11.—Laying House, showing roof held in position to allow of the eggs being gathered.

themselves also measuring 18 inches square, and divided by boards 9 inches in height, the sides and ends of the whole being 10 inches deep. These support the roofs, which on each side are hung on hinges from the top. The roof can be lifted up at will to obtain the eggs, being supported while this operation is in progress by a piece of scantling, suspended by a hinge to the bottom of the roof, the latter being covered with felt, or made with wide boards, the open space underneath providing good shelter from sun or rain.

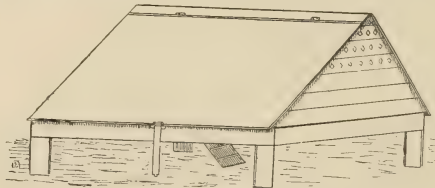


FIG. 12.—Laying House in ordinary position.

An excellent drinking trough, to hold sufficient water for 50 to 100 head of Poultry, is described by Figs. 13, 14, 15, and is made of an outside wood casing, with zinc or galvanised iron lining, the whole supported by four legs, four inches in height (to accommodate the number of birds stated, it will be under-

stood that a large quantity of water would be consumed daily), and if this is made 6 feet in length, 14 inches in width, and 6 inches deep, it will be found ample. A plug at one end is required to drain off the water when cleaning operations are in progress. The whole is covered with a removable roof, which projects four inches over the trough on each side, and which being supported by six legs, 15 inches in height, is fixed inside the trough. This plan always keeps the water beautifully cool by allowing a current of air to circulate across the surface, and can be placed in any position, being specially adapted for the open run or yard, where no shelter can be obtained. Fig. 16 is a simple and effective drinking fountain, suitable for chickens, made from an ordinary kerosene tin.



FIG. 13.—Bottom Section of Drinking Trough.



FIG. 14.—Roof of Drinking Trough.

Before closing our remarks on this head we would wish to draw the attention of those interested to the great value of Poultry droppings as one of the best fertilisers—Poultry manure being more valuable than any other, since it contains liquid as well as solid excrements, whereas cow and horse dung contain but little urine, unless it has been caught by absorption. Ammonia is principally excreted with urine; therefore, when the liquid and solid excrements are combined, this valuable nutritive element is secured for the plants, as well as the alkali and the phosphates of the solid excrements. All a fowl eats is contained in its droppings, except what is required for growth and production of eggs; therefore, the quality of fowl manure depends greatly on their feeding. An experiment conducted on a large Poultry Farm proved

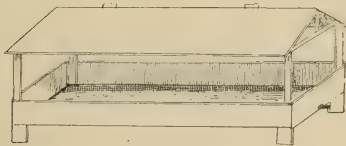


FIG. 15.—Drinking Trough Complete.

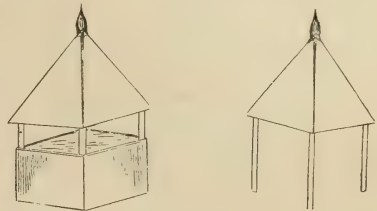


FIG. 16.—Drinking Pan made from ordinary Kerosene Tin.

that a fowl in a confined run produced about 30 lbs. of fresh manure in twelve months, which represents a value of 3d. The nutriment required by plants which is contained in fowl manure is easily soluble, and quickly absorbed by growing plants.

Fowls fed specially for fattening purposes produce a larger quantity of rich dung. Each fowl yields, therefore, an average of from 3d. to 6d. value in dung yearly, which, in large numbers, would amount to a considerable item. So it behoves those who keep a large or small number of Poultry to attach some importance to the certain return from this so-called waste product.

CHAPTER II.

SELECTION OF BREEDING STOCK.

As housing and accommodation are of such grave importance in Poultry undertakings, equally so is the selection of the breeding stock, quite as many failures resulting and arising from lack of knowledge on this head as from any other. Certain breeds adapt themselves to the surroundings much better than others; and, remembering that Poultry differ so widely in their habits and characteristics, all these are matters for consideration. It is acknowledged that the art of man has developed and perpetuated points of excellence in the laying capabilities of certain breeds, and sacrificed this same quality in many others to gain a distinctly different object; thus, a strain or breed of high-class laying fowls will be found to possess but moderate or poor table requirements, and, on the other hand, a breed which *excels* in quantity and quality of meat will invariably prove very indifferent layers.

There are some breeds, such as the Plymouth Rock, Wyandotte, Orpington, and Langshan, which combine the two qualifications to a great extent under favourable conditions, but these have been artificially cultivated, and it will be found that the rule holds good as to the two virtues being fairly wide apart. Many persons, in starting, imagine that it is only necessary to buy up a few hundred head of Poultry, without respect to breed, size, age, or quality—veritable mongrels, in fact. They have to begin all over again, or struggle along in the ruck with a very remote prospect of success attending their efforts; so that it behoves those desirous of making Poultry Farming, in its true sense, a payable undertaking to devote a little time and forethought to the selection of the stock, which will, with proper care and attention, ultimately give good results, as any selected breed or first-cross Fowls will give higher returns in eggs or meat than a lot of non-descripts picked up haphazard. Would any breeder of live stock—sheep, cattle, dogs, pigs, etc.—expect to obtain good or lasting results from an inferior addition to his present stock? Rather otherwise, we should state; and this applies to the would-be Poultry-raiser, only more so.

If a Spanish, Leghorn, Hamburg, Minorca, or Andalusian cock is turned down with a lot of the commonest of common hens, the progeny from any one of those birds will have their laying powers increased to a considerable extent; and if a Malay, Indian Game, Dorking, Australian Game, or Houdan cock is used, very little, if any, improvement in the laying capabilities of the stock thus bred would be noticed, but the result would show in the quality and quantity of meat and increased size. At the same time, Leghorns, Andalusians, or Minorcas kept pure, and the best layers' eggs selected for hatching and perpetuating the race, will eclipse all other cross-bred varieties in the number of eggs obtained from a given number of hens. This statement does not apply to Poultry bred for table purposes, as cross-bred birds such as Malay-Dorking, Brahma-Dorking, Game-Orpington, Indian Game-Rock, Indian Game-Dorking, Houdan-Brahma, or Game-Langshan, will in every instance be superior in size and quality of meat, and arrive at maturity quicker than pure-bred birds.

To classify the principal breeds of Poultry as to their comparative values, the following order will be a good guide, though under different circumstances and surroundings they may vary slightly:—

As Layers.—Leghorns, Hamburgs, Minorcas, Andalusians, Orpingtons, Langshans, Houdans, Brahas, Wyandottes, Spanish, Plymouth Rocks, Polish, Scotch Greys, British Game, Cochins, La Fleche, Bantams.

For Quality of Meat.—All varieties of Game, Malays and Aseels, La Fleche, Dorkings, Creve-Cœurs, Houdans, Polish, Wyandottes, Brahas, Scotch Greys, Orpingtons, and Langshans.

For Size and Weight.—Malays, Australian Game, Indian Game, Brahas, Cochins, Orpingtons, Langshans, Dorkings, Plymouth Rocks, Creve-Cœurs, La Fleche, Wyandottes.

For Hardiness.—Leghorns, Brahmas, Orpingtons, Langshans, Plymouth Rocks, Cochins, Houdans, Minorcas, Andalusians, Malays, Australian Game, Indian Game, British Game, Wyandottes, and Scotch Greys.

As Mothers and Sitters.—Dorkings, all varieties of Game, Plymouth Rocks, Cochins, Scotch Greys, Brahmas, Wyandottes.

And for general purposes, combining the most useful qualities as pure-bred birds, we would select Orpingtons, Wyandottes, Langshans, Brahmas, Scotch Greys, Houdans, and Plymouth Rocks.

If the space at command is limited, the Orpington, Leghorn, Minorca, Houdan, Wyandotte, or Plymouth Rock will be found the best breeds to keep; but Brahmas, Cochins, Dorkings, Polish, Game, Hamburgs, etc., kept in a small and cramped-up location, will (except for fancy purposes) rarely do well. Should the Leghorn, Minorca, Hamburg, Spanish, Andalusian, or Houdan be selected, and it is desired to rear a few chickens for home requirements, it will be necessary to procure broody hens or an incubator to hatch the eggs, as these breeds do not incubate.

From the experience gained by many breeders of Poultry, the Orpington, Langshan, Brahma, Houdan, Wyandotte, and Plymouth Rock are the most profitable breeds to keep in Australia under ordinary circumstances, and, properly managed, excellent results may be obtained from any one of them, though, at the same time, for the run of a Farm or Orchard the same breeds will still be found the best for *general* purposes.

For an unlimited or free range, the Hamburgs, Games, Cochin, Brahma, Langshan, Scotch Greys, Plymouth Rock, or Wyandotte will do amazingly well. The Hamburg and Game, under these conditions, are excellent layers of well-flavoured eggs, and the Cochin, Langshan, Brahma, Plymouth Rock, or Wyandotte look at their very best, and do much towards removing the false impression that they are more or less mere "Fancy Fowls."

In breeding stock for egg-production, it is imperative that the laying stock should be systematically replaced each year, with one-third of the total number kept, by young pullets, not under any circumstances retaining on the Farm the hens after they are *three* years old, as on arriving at that age they have seen their best days, and do not, as a rule, pay for the feed they consume; they can, on arriving at this age, be sold off, and a *certain* return obtained, which would be very *uncertain* if they are kept longer, as, if allowed to remain on the Farm, they occupy the position of more prolific and profitable birds, and serious loss is occasioned. This is overlooked by many who seek to make a living out of their Poultry, and should be guarded against with rigid determination. To "Fanciers" and Breeders of Exhibition Poultry this drastic measure does not always apply, as frequently a hen of proved excellence in past seasons is well worth keeping to breed from as long as she will lay; in this instance, probably a half-dozen eggs will represent quite ten times the value of an ordinary egg-producing hen.

Again, much rests in the hands of the Poultry Farmer who makes a study of supplying the market with eggs, in breeding his laying stock at the proper time of year, so as to keep up the laying returns at a fairly universal rate—not, as so many are situated, with plenty of eggs when low in price, and none or few when a fair price may be secured. This can be done, but depends to a great extent on the careful selection of the variety and breeding the stock at the correct time of the year, of the more prominent egg-producing breeds, such as the Leghorn, Minorca, or Andalusian; it is best to hatch the chickens as early as possible in the spring, or the latter end of the winter. In Australia the change of seasons vary considerably, so that no fixed data could be given beyond the suggestion that in the coastal area July to September would be the best months for hatching operations, in the Centre and Southern divisions August to October, and in the Northern and Western divisions June to August. As there are residents in Australia over 2,000 miles apart, it will be seen how difficult it would be to state a definite time for hatching operations to begin; and the reader must use his own knowledge of the proper time to do so, being guided by the seasons in his locality, remembering that *late hatched or summer chickens never pay for the trouble of rearing*, and, if the error has been made, they should be killed for the table while young.

It will be thoroughly understood that we have a decided preference for pure-bred birds for economic purposes, though startling differences of opinion will occur on the subject: but the argument holds good that, as in Fancy Poultry, selection and preference have definitely fixed certain traits and characteristics sought to be gained, the matter is easily worked out on the same lines with Market Poultry, whether for egg-producing or table requirements, *and it never pays to persist in keeping miserable or weedy-looking specimens either of Fancy or Utility Fowls*. The "survival of the fittest" is the motto to act upon with the management of all Poultry: and in the end this rule, followed out rigidly, will bring the best returns, and in the shortest time.

In selecting the stock birds of any variety, strong, vigorous specimens only should be bred from. Experience has proved that it is impossible to obtain strong healthy chickens from stock birds whose systems have been undermined by disease in some form or other. The natural consequence, in breeding from unhealthy birds on either side previous to the formation or fertilising of the eggs, is that the chickens produced will be weakly and almost worthless, though they may appear in their earlier stages to do all right, but, as sure as the sun sets, the latent disease in their systems will appear, and disaster ensue. This has been borne out times without number by bitter experience, and should prove conclusively to beginners that no good and lasting results can be expected from unhealthy parent stock. Again, as the fertilisation of the egg rests on the vigor of the stock cock, it is folly to allow the stock birds to run together right throughout the year. If this is done there is certain to be a large percentage of unfertile eggs just at the time when fertile eggs are wanted most, the birds being to a great extent played out: and it is imperative, if strong and healthy chickens are desired, to remove the stock cock for at least four or five months in the year. This will allow the bird to recover his flagging energies, preparatory to being again placed in the breeding-pen. There is no tangible or reasonable objection to this (beyond the slight trouble of accommodating the bird in separate quarters), as chickens cannot be reared throughout the year with profit or success. It will be understood that a valuable bird is all the better for a rest, and when again returned to the breeding-pen no fear is likely to arise on the score of the eggs from that particular pen being unfertile, unless the bird is too old or worn-out. The advantages accruing from this method are so great that we are surprised it is not more universally adopted.

Another equally important consideration in the selection of the breeding stock, that it is well to bear in mind, is to choose birds that are fully matured, some breeds arriving at maturity much more speedily than others, and this has to be considered when mating the breeding-pens. For instance, Leghorns or Andalusians could with safety be bred from at nine or ten months old, but to pursue the same plan with Langshans or Brahmas at the same age would not answer at all, as the Langshan or Brahma takes quite two or three months longer to develop. This suggestion is given as a guide to the mating of birds of equal age where no other opportunity is available, but a far better system is to mate birds of different ages—cocks two years old or over to pullets, and cockerels to hens two years old or over. This system is generally followed by "Fanciers" who carefully study the question, to obtain the best and highest results: though, for an ideal breeding-pen, birds two years old on both sides invariably produce the strongest and most vigorous chickens, and which fledge quicker and better than others bred from younger parents. In many instances this former plan cannot be followed, as in all probability the stock available will not allow it, but, where practicable at all, it will be found the best system to pursue. One evident fact stands out positively and conclusively, that it is quite unreasonable to expect vigorous progeny from birds which are immature on *both* sides, and the beginner should always bear this in mind, and weigh the selection and mating of his breeding stock over thoroughly. By doing this much heartburning and disappointment will be avoided, much more so than if done in a haphazard or careless manner.

The trouble with too many Poultry-breeders, whether for market or exhibition purposes, lies in expecting immediate and profitable results, and in not realising the palpable fact that it must necessarily take some time to build up a trade or demand for their products (and in breeding Poultry the same applies as to all other kinds of stock). The breeder is constantly adding to his store of useful knowledge as long as ever he continues

in the business, and the more observant and apt he is the sooner will desirable results crown his efforts. The proportion of high-class specimens in any flock, no matter how large, is invariably small, and if they are bred in a careless manner will be still smaller. This is the reason that startling prices are often paid for high-class specimens, and readily, too, by those who wish to improve their present stock. Systematic selection and breeding of stock is the only plan to obtain profitable results, no lasting benefit ever being brought about by mere chance, the former being due to long-continued and well-directed efforts in the selection and breeding of stock for either market or show purposes.

The successful breeder of Poultry must begin long before the advent of the chickens. Hens that have been starved or neglected will not lay eggs containing healthy, vigorous germs, and young pullets that are forced into early laying by the free use of stimulating foods never make good breeding stock.

Again, the infusion of new blood is in most instances desirable, but there are exceptions to the practice which make it necessary to proceed with caution. If this is not intelligently carried out, much loss in time, money, and patience, coupled with disappointment, will surely result.

In Farmers' stock, where the production of eggs and meat are the prime consideration, it is a good plan to change the breeding cocks each year, to infuse new stamina into the stock, which will do much to secure an immunity from disease, and tend towards increased size in the progeny.

But for the Fancier, whose sole object is to produce high-class specimens, such proceedings would be most unwise, as in-breeding must be resorted to so as to firmly establish certain given characteristics in a strain of high-class Poultry. This would be all undone if a fresh cock from some other strain were introduced each year. To explain this: That in the majority of show specimens the process of artificial selection has fixed certain characteristics which are known as the *points* of the breed, and, as long as the breeding stock is composed of birds which have blood relationship, though distantly apart, these points will continue to show themselves in the stock bred from them; immediately that fresh or alien blood is introduced reversion steps in, and the stock will in nearly every instance revert to the original type, in many instances proving quite worthless, showing by practical experience that in-breeding is a necessity, though at times it may be productive of evil results; cross-bred birds being, as a rule, healthier, stronger, and more vigorous than pure-breds, for the simple reason that the animal vigor is strongly stimulated and quickened by the crossing of two distinct varieties, and it is to this increased vigor that the increase of eggs and the desire to reproduce its species is directly responsible. It is well known that cross-bred birds of pure breeds grow much faster, fledge more quickly, and mature earlier, and are on these grounds alone far preferable for market purposes or egg-production than pure-breds at all *in-bred*. The greatest difficulty with beginners is the want of knowledge or idea of crossing, for which there must be a distinct object in view—for instance, mating any of the Game races with a Plymouth Rock, Wyandotte, or Brahma, or any of the Mediterranean breeds with the same varieties, the progeny will arrive quicker at maturity both for egg and meat qualities, a point which should be always uppermost in the mind of any Poultry Farmer; and we are aware that by crossing birds totally unrelated and of different breeds, we mix the two bloods which will impart vigor, strength, and ability to the birds thus bred to produce eggs in greater abundance. These excellent qualifications, however, are only embodied in the first cross, as by in-breeding, that is, the cockerels to the pullets, we at once destroy these qualities, and the progeny are nothing but mongrels. These benefits, however, are chiefly of interest to the Poultry Farmer who breeds for egg and meat production, and who does not retain for breeding purposes any other than pure-bred stock, or *stock crossed each successive year with a pure-bred bird of another variety*; but to the person who keeps Poultry for a hobby and the pleasure derivable from the pursuit, and who has but limited space, pure-bred birds will give far more satisfaction, and, under the circumstances, higher profits, if desired, than cross-breds. For the Farmer cross-bred birds arrive at maturity earlier, and are, without doubt, better layers *as pullets* than pure-breds, but they cannot approach any of the more prominent *pure-bred* laying breeds after they have passed their first year. There is little doubt that cross-breeding has increased to a considerable extent the hardiness of birds thus bred, and this excellent result has induced the "Fancier" to do the

same in a limited degree, with the natural consequence that the majority of pure-bred birds are more vigorous, have vastly increased stamina, and the utility qualities are slightly increased, much more so than was the case some years back. The evil effects of in-breeding continuously must of necessity drain the *constitution* of the birds, though fixing the fancy points or markings definitely.

Moreover, crossing is not so objectionable where a careful selection of the stock birds is made, and where there is an object to be attained. To simply cross two breeds, without knowing or heeding what the probable result will be, is to court certain failure. Some breeds will cross with others to advantage, but when breeds not suited to each other are crossed the progeny will be decidedly inferior. To explain this: A Brown Leghorn cockerel crossed with a Partridge Cochin hen. The birds so bred will be hardy, of good size, and fair layers. In both breeds the cocks possess black breasts, single combs, and are fairly similar in plumage, though there is a marked difference in size and shape. Should, however, a Polish cockerel be crossed with any of the Asiatic varieties, veritable mongrels will be produced; the cross being too sudden or violent, the progeny will fail, in being either delicate or wanting in prolificacy, and inferior to either breed pure. This is the cause of most failures in crossing, that is the haphazard or careless manner in which the breeding stock were mated; and, under the circumstances, where practical knowledge is wanting, it is better in every way to keep the breeds pure than to cross them with birds that have nothing in common. In a few words, there is an art in crossing to obtain good results.

To prove that the main qualities of the different breeds are often sacrificed will be shown by the following experiment: Select a number of hens of various breeds, or of one breed only, and cross them with a Houdan cock. The progeny will lean strongly towards the Houdan type, many appearing almost true Houdans (as the Houdan possesses such prepotency). It will appear at first sight to be an excellent cross, and is undoubtedly so the first year, but if these cross-bred fowls are allowed to breed together nothing but an inferior class of fowl will result. The first cross was successful because the Houdan was pure and selected for the purpose, but the second would turn out a failure owing to lack of affinity in the stock. No cross can be made, that will *improve* qualities that cannot be found in pure breeds, without sacrificing in some degree other qualities; if the pure breeds are not perfect, the same may confidently be said about the cross-breeds. If a breed possesses one quality more dominant than another, part of this is lost by crossing, as a perfect bird cannot be produced by crossing two different varieties. Without doubt it requires more than two to blend into one the good qualities of all, and when one point or quality is gained some other is necessarily sacrificed.

Any desired virtue may be found embodied in one or other of the pure breeds, there being so many breeds of Poultry (now recognised as standard breeds) which were produced by a very long series of systematic selection and judicious crossing, that to further attempt to produce a bird of superlative all-round merit by crossing would be the same as carrying coals to Newcastle, and a waste of energy. Again, crossing cannot unite extremes; a breed intended to be contented in a confined space cannot of necessity become an active forager, and an active forager, such as the Leghorn, Andalusian, or Minorca, will not give satisfactory results, *in keeping with their recognised qualities*, if kept in close confinement, so that nothing would be gained by crossing two breeds of such widely different habits. The pure breeds, being in such great variety, offer quite a wide enough scope to select from; some are extra hardy, of early growth, some highly prolific, some of great size, others small. Beauty of plumage, grand carriage, undoubted courage, and quality of flesh are qualities *not possessed entirely by every breed*, yet each will excel in one or other of these distinct characteristics.

Poultry Farmers should take the greatest interest in the selection of their breeding stock. The only and certain way to make Poultry pay is to breed stock which converts the raw material (food, etc.) into eggs and meat in the shortest possible time, and it will be found that the pure-bred birds are capable of yielding the greatest number of eggs and the best and heaviest carcasses at the least cost, if the two qualities are desired in combination. The cross-bred fowl or mongrel is more or less an uncertain quantity, having no definitely fixed qualities, and being unable to transmit uniformity to the progeny, after all occupying a position which can be filled to immense advantage by pure-breeds.

Again, there are many persons who have started in the pure-bred Poultry line, and at the end of a year or two thrown the pursuit up in disgust. Often the remark is passed that they would not feed a Cochin, Brahma, or a Game Fowl, plainly showing the ignorance of even the merest rudiments of practical experience. In every such instance the whole trouble is in the disposition of the individual, not with the fowls; and if a man has been a loser in the enterprise of breeding exhibition, or even market stock, he can lay the blame entirely to his own want of energy, and neglect, as there are many men who keep the same varieties, and who have and are still making money out of the business. The first man, in most instances, starts wrong by purchasing eggs or birds from vendors, without having first posted himself up as to the relative position the stock purchased occupies in the market; but, feeling confident that he will easily be in a position near the top in the variety he fancies at the end of the second season, and that the whole of the surplus stock he can produce will be readily bought up by others, this assumption is rudely shattered, and he often quits the business in disgust. Often with a man of this description quantity is the thing, quality he never considers, and, to his mind, the cheaper the birds or eggs are is the first consideration; and, besides, when offering the produce for sale, he thinks that the produce of cheap birds are nearly, if not quite, as good as the higher-priced stock, and even if they are not, who among the purchasers of eggs from him can tell the difference?

Furthermore, when purchasing pure-bred fowls on starting, they are frequently placed in an old fowl-house that has been neglected for years; then, being a nine days' wonder, are cared for and fed for a time, but afterwards neglected. Hens are set, but the lice drive them from the nests; or, in instances where the hens are of a determined disposition, the lice will sap the last drop of life-blood from their bodies, leaving but bone, muscle, and feathers on the nest, and this often gives rise to the query—Why on earth is it that pure-bred stock are so delicate, so difficult to rear, and die so mysteriously? If the word lice is mentioned to him the breeder is flabbergasted. He never saw a louse on one of his fowls; and if the fact is stated that in all probability lice was the primary cause of his failures, he will deny it in the strongest terms. His brood stock, their systems run down from the attacks of insect pests, or out of order from a constant diet of improper food, fall victims to roup, and the few chickens that are hatched, and which survive the ravages of their natural enemies, contract roup or other ailments, from want of shelter and shade, and a diet of sour food thrown down in all the surrounding filth, thus becoming dwarfed in size, and of delicate constitution, eventually degenerating into a flock of birds, the appearance of which would dishearten any one.

With this stock for a foundation, our would-be Fancier advertises eggs from *prize-winning* stock, and soon after receives condemnation from buyers on all sides, owing to the motley lot of chickens hatched from the eggs supplied. A man thus becomes by his own neglect branded as a knave. The fowls are considered to be a worthless breed, which condemnation could all have been prevented by a little thought and care the proper selection of the breeding stock, and their proper management.

Finally, in selecting the brood stock, it must be borne in mind that Fowls are peculiarly susceptible to many and various diseases, and any tendency to disease is almost certain to be transmitted to their progeny—as weakness produces weakness, so vigor begets vigor. Hardiness, vitality, and vigor of constitution are of far greater importance than all the other desired qualities combined. Each new purchase should be carefully examined, rubbed well over the body and feathers with the carbolic preparation, as advised in the treatment of the sitting hen, or well dusted with insect powder, so as to destroy lice or their nits, if present. This precaution taken, the bird should be placed in quarantine, and kept strictly isolated for a few days before being allowed to run with the occupants of the yard. A mild or chronic case of disease in the new purchase may introduce a serious trouble. A single infected fowl would most likely contaminate a whole flock if allowed to run in company. In feeding the breeding stock with animal food such as raw liver or entrails, great care should be taken that the latter are well cooked before being fed to them, as, if fed in a raw state, they are very liable to contain parasites and germs of disease likely to affect fowls.

It is of the utmost importance that poultry breeders should isolate and disinfect all fowls the moment they exhibit symptoms of sickness; if this is noticed, it is most unwise to let them remain with the rest of

the flock for even an hour. They should be placed in hospital at once, thus minimising the risk of contamination.

The stunted or unthrifty specimens also should be killed off to prevent them, in many cases, becoming disease distributors. Doctoring sick Fowls, especially breeding stock, rarely pays; though at times a *post-mortem* will often reveal the trouble, and preventive measures at once taken may ward off disease from the rest of the birds. As a rule, if the ailment is serious, it is far better to kill them and promptly burn the bodies, or bury them in quicklime. If simply buried in the ground, without taking the latter precaution, great risks are run, as a specific germ is present in most diseases of Poultry.



CHAPTER III.

NATURAL INCUBATION.

BEFORE proceeding to give our readers advice on the management of the sitting hen, we will explain in as few words as possible the composition and structure of the egg. On analysis the shell is found to be composed of carbonate of lime, perforated by minute holes, which can be seen by the aid of the microscope, Nature making a wise provision by this means in providing the required amount of air to the embryo chicken, and for the purpose of evaporation. If the egg is covered with a coating of grease, or if a pin-hole is pricked in the top or large end of the egg, it will effectually prevent the egg hatching. Thus many hatches are spoiled by one egg being broken in the nest, and covering the others with the contents.

The freshness or staleness of an egg can be tested by the size of the air chamber, which in a new-laid egg is very small, becoming larger and larger the staler the egg, until at last in a very stale egg it occupies nearly one-third of the whole inside space in the shell. This is caused by the evaporation of the moisture in the air chamber, and outside air taking its place.

The white, or albumen, of the egg is that from which the future chicken is formed—not the yolk, as is often erroneously supposed. The yolk is also composed of albumen, coloured chiefly by iron, and is enclosed in a fine membrane or skin to prevent admixture with the white. The yolk supplies to the embryo chicken the necessary nourishment while going through the different stages of incubation, and for some time after hatching this is absorbed through the navel, and traces may be found in the intestines, on dissection, for some days after being hatched. Attached to the outside of the yolk, in appearance like a small dark speck, is the germ, which always floats uppermost, no matter in what position the egg is laid down. This is a wise provision made by Nature, allowing the germ to be kept nearest in contact with the heat of the hen's body, and which is studied by all makers of modern incubators in providing heat downwards to the egg. The length of time occupied by the chickens in obtaining admission to the outside world varies to a great extent, depending chiefly on the vigor of the chicken, or thickness of the shell. The beak is provided with a small horny covering at the top, to assist the chicken to break the shell, which it does with a star-like fracture, at first gradually, working right round in a nearly straight line, cutting off the top of the shell in the form of a lid, then with a few vigorous stretches is free. It is not wise to assist them out of the shell, Nature sees to this much better than man can do, and if a chicken is not strong enough to get out of its own accord it will rarely do any good in after life, and the *whole* of the yolk should be absorbed into the abdomen, otherwise they rarely live. Chickens are frequently found dead in the shell; the causes of this are many and various. It may be that the eggs have been badly fouled at some time during the process of incubation; that the chickens may be wanting in constitution or stamina; that the eggs become cold at a critical time; or from want of moisture, or *bad ventilation if hatched in incubators*. There are many causes likely to arise during the different stages of their development which prove fatal, and often cannot be avoided. The chickens when first hatched present a miserable appearance, but after a few hours' warming look most attractive.

In selecting eggs for incubation, if a hen is used for hatching, eggs can be kept for a fortnight or three weeks, and even a longer period, if they are placed large end downwards in a box covered with stout cardboard or zinc, in which holes have been cut in size to accommodate the eggs, and stored in a moderately cool place, which is not higher than 70 to 80 degrees Fahrenheit in summer. A higher temperature, such as 90 to 95 degrees Fahrenheit, will invariably spoil the eggs for incubation. Severe frost will have the same effect, so eggs intended for hatching should be placed in some place where a fairly moderate uniform temperature can be obtained.

If the eggs are to be placed in an incubator, the fresher they are the better. On no account should stale eggs be placed in a machine. The eggs should not be more than 10 to 14 days old, but if under a week old will turn out much better, the reason for this being that the vigor of the germ deteriorates the longer the eggs are kept, and is in stale eggs often quite dead, and they are useless for incubation.

To manage the sitting hen is at times most vexatious; but a little patience and perseverance will, in most cases, overcome the difficulty. Where a few chickens are reared—say from 20 to 50 each year—it will be found that the best plan to follow is the natural system of incubation—by purchasing a few broody hens for this purpose, if not obtainable in the home yard when required. In the first place, select the best-shelled eggs, free from roughness or unevenness, and reject all misshapen ones, and at the same time if it is possible to choose the eggs from the best birds, whether common hens or high-class poultry, the trouble thus taken will be well repaid—much better results likely to be arrived at than from eggs set indiscriminately. The safest and wisest course, and one fraught with less danger or risk of breakages caused by the birds quarrelling with one another, is to set the hen in a perfectly secluded spot, or in a house by herself, where she can come off at will and dust herself, and at the same time obtain food and water, as the less hens are meddled with the better while incubating. On a small scale or where few chickens are required yearly, this can be easily managed; but on a more extensive one, where a number of hens have to be accommodated at or about the same time, separate nest boxes will be the most advantageous. In the former instance, if a hen can be given a small house—say 6 feet by 3 feet—where no interruption is possible from the other birds, a spot in one corner of the house hollowed out of the ground (presuming that the floor is composed of earth or sand), with a couple of bricks placed at right angles with one another, to prevent the surrounding earth from falling in, and to keep the nest in shape. In the place scooped out place some sifted wood ashes, then a few handfuls of crushed or broken straw, enough to make a snug and comfortable nest, then sprinkle the straw and surroundings with a solution of Calvert's No. 5 Carbolic Acid, a teaspoonful to a quart of water, to act as a warning to insect pests that their presence is by no means desirable. Place the eggs in the nest in number according to the size of the hen, and which she can completely cover, and if the eggs are fertile, bar accidents, a good hatching may be anticipated. It is necessary to keep food and water always handy to the hen, sound grain, such as Indian Corn, which on her own inclination she can obtain without hunting around, though it will be found that in an occasional instance a hen is such a close and attentive sitter that she will not come off the nest. Should this be the case, the hen should be gently lifted off daily to feed, taking care that no eggs are caught between her wings and body. This allows an opportunity of cleaning the nest if it is fouled, and the hen's absence from the eggs for a short period each day has a highly important and beneficial effect in allowing fresh air ingress through the shell of the egg, which naturally invigorates the chicken in embryo. Straw is mostly used to form the nest; but our experience, tested by many years' experimenting decidedly leans towards fresh-cut green grass as being much better and sweeter, and not as likely to encourage the development of parasites, besides when green having a moisture which is most desirable. We do not mean sloppy, wet grass taken from or near a water-course, but grass which, as a rule, is plentiful enough in most locations, growing along side fences. In the tropical weather often experienced here sifted wood ashes alone are quite the best bottom for the nest, and we have proved this on many occasions. Nests thus made, and used in the very hottest weather, will be found a good guard against insect pests. The latter are difficult to cope with in warm localities, and we have noticed at different times instances in which the nests were swarming with parasites through carelessness and neglect. How can it reasonably be expected that a hen, no matter how good a sitter she may be, could hatch the eggs labouring under the disadvantages stated? So that a little care and attention given to the proper supervision of the hen while sitting will save many a valuable brood.

As hens vary to a great extent in size and length of limb, it will be found that some require much larger and roomier nests than others. For a large hen—such as a Brahma, Cochin, or Malay—about 16 inches square inside measurement will be required; but for Game or the smaller varieties, about 12 inches square inside measurement will be sufficient. In all instances the hen must have sufficient room

to turn comfortably, thus minimising the risk of breakages. Should, however, any of the eggs get accidentally broken, procure a large bowl or bucket of water just sufficiently hot enough to bear the hand in without pain. This would be from 100 to 105 degrees Fahrenheit. Immerse the whole of the eggs in water while cleaning or renewing the nest (taking the hen off gently while the latter is in progress), then wash every soiled egg, holding in the water while doing so. When the whole batch is properly cleaned, return them to the nest, placing the hen upon them immediately. Should any portion of the broken egg or eggs adhere to the breast of the hen, a sponging with the warm water will remove the mess; but if left undone, it is an absolute certainty that more eggs will be broken the next time the hen leaves the nest, by adhering to the portion of the first broken one left on the feathers. If this is not attended to, and done in a thorough manner, the whole batch runs the greatest risk of being entirely spoiled, through being covered more or less with filth, which will effectually prevent the remotest possibility of any of the eggs hatching.

In extremely warm, dry weather a little water sprinkled around the nest will greatly assist matters, as in very dry, windy, or hot weather the membrane surrounding the chicken will be as dry as parchment, and the chicken, being unable to turn round so as to crack the shell to extricate itself, will perish. It will be noticed that when a hen roams away, and stealthily lays her eggs, she will invariably choose a cool, shady spot, and by coming off to obtain food and water, and walking on the dewy grass, her breast and underfeather become damp or wet, which materially assists in giving the eggs the necessary moisture. This is completely frustrated if the hen is set under ordinary conditions, such as in a box with dry straw only. Where a box is intended to be used, a moderate quantity of *damp* earth should be placed on the bottom, the straw on top; but where practicable at all, set them on the ground as before advised. A little attention given this important detail in the management of the sitting hen will be highly beneficial to the embryo chicken. In damp or wet weather this is unnecessary, as the surrounding atmosphere contains sufficient moisture to do what is required. In severely cold or frosty weather great care will be needed to prevent the hen from being absent from the eggs longer than a quarter of an hour, or even that length of time with valuable eggs (especially during the first few days of incubation) would most likely prove fatal.

Minute parasites are another frequent cause of failure, being often so small that they cannot be distinguished by just a cursory glance. If these are noticed on close inspection, the solution of Carbolic Acid, before-mentioned in this chapter, rubbed on the hen's breast, under the wings, vent, and fluff, will set matters straight. Many eggs failing to hatch can be traced to this cause; and, as the remedy given is a reliable preventive, if applied when first the hen is placed on the eggs, and is such a simple operation, there is no reason why it should be neglected.

Many beginners give no thought to the fact of how many eggs a hen can completely cover, or how many chickens she can nurse when hatched; their idea is to get as many eggs under a hen as possible. This works out its own end in poor results, as, by placing too many under, the eggs in turn get chilled through the hen constantly changing her position. Again, whatever number are given the hen, in the first place, are best marked with a ring of ink right round the *middle* of the egg; this can be seen at a glance without handling, and is preferable to marking at either end. It will be found that in many instances the hen will lay two or more eggs after taking to the nest. These are better removed, as, if there is a day or two difference in the date of the eggs starting incubation, the same interval will be noticed on their hatching; and in any case, if the proper number are given the hen at first, any increase would be unwise. For the average-sized broody hen we consider eight to eleven eggs quite sufficient, and it will be proved that better results are obtained from these numbers than from a larger quantity set under hens the same size.

To manage nervous, wild, or restless hens, it is advisable to cover them with a box larger than the nest, with 1-inch holes bored at close intervals for ventilation; this keeps them quiet for a few days, when it can generally be dispensed with. Our system has been for years to see that the hen is thoroughly broody. Take her to the house at night, place her down in front of the eggs, and by the aid of a light, if she is, to use a well-known Colonial phrase, "on the job," she will walk quietly on to the nest and settle herself comfortably. This, of course, only applies to quiet, docile hens, not to those of the termagant variety, which are best

managed with the covered box. Where a number of sitting hens are to be accommodated, boxes with the bottoms and one side knocked out, placed completely over the hens, is a good method. The nests can be hollowed out of the earth against the wall, with a couple of bricks placed to prevent the straw from being scattered about, and covered with the boxes; these should have holes bored for ventilation at sides and top (see Figs. 17, 17A). The advantage gained by this system of managing a number of hens is very great. The attendant can let off one hen at a time to water and feed, and, if a fairly large shed or house is available, a large number can with safety be managed. This plan we have seen in operation, and, where an attendant can devote an hour or so each, night or day, minimises the room required considerably. In handling a number of hens, if the dates of setting two or more correspond, and some of the eggs on testing are found sterile, the fertile eggs can be given to one and a fresh lot substituted to the other. On careful examination, the attendant will be fortunate if none of the fertile eggs are cracked; if found to be slightly cracked, a strip of gummed paper placed over the damaged portion will often avert disaster, and the chicken hatch all right. For common eggs it is scarcely worth the trouble, but for eggs which are valuable, if this is done within a reasonable time, the chickens will safely hatch. Many hens, when some of the chickens are hatched, raise themselves up off the eggs just chipped, and this retards their progress; in a case of this kind it is best to remove the chickens from the hen for a few hours, placing them in flannel in a basket or box by the fire, when, in most cases, the hen will give the proper attention to the eggs left. Some hens are very careful of the chickens, and this causes them anxiety, with the result that often, if the chickens are left with her, the other eggs on the point of hatching get cold and, failing to receive the necessary warmth at the critical time,

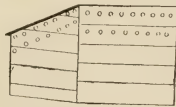


FIG. 17.—Nest Box, with holes bored for ventilation, for setting hen.

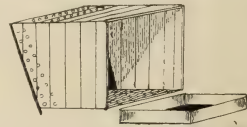


FIG. 17A.—Nest Box, showing arrangement of Nest.

die in the shell. The chickens taken away can be returned to the hen at night, and will be found bright and lively in the morning. Rats have a decided liking for eggs and young chickens. Instances have come under our notice where whole batches have been taken from under the hen, a few at a time, by these vermin. If once a rat tastes an egg while a hen is sitting on them, there will be a poor look-out for any chickens. If present in the Poultry-yard, they should be exterminated by poison or trapping.

The eggs from the major portion of the different breeds of Fowls require 21 days to hatch, but this is not absolute, much depending on the hen. If she is a close sitter, 21 days will generally find that the chickens are hatched, but in cold weather it will often take 22 or even 23 days to bring about the desired result, and it also takes stale eggs, such as a fortnight to a month old, longer to hatch than perfectly fresh ones—that is, from one to four days from date of laying. Game Bantams' eggs invariably hatch on the nineteenth day; turkey eggs, from 26 to 29 days; duck eggs, 28 days; goose eggs, 30 days.

It is as well to test eggs a day or two before hatching (this can be done with safety, and will prove of marked benefit to the eggs) by placing them in a bucket of water heated to 105° Fah., when in a few minutes those containing living chickens will commence rolling and bobbing about in a peculiar manner, caused by the movements of the chicken within the shell. Those that are dead in the shell can easily be discovered and taken away at once, as they only hamper the hen. We have found that eggs treated in this manner hatch remarkably well, and have noticed many chickens chip the shell while in the water. Should the eggs, by accident or otherwise, get cold or chilled just before hatching, or if the hen, from any cause, should have left them at this critical time, by placing the eggs in the warm water as directed the life can be brought back much quicker than by the warmth of the hen's body; and, if another hen is procured, many a valuable chicken may be saved by this means.

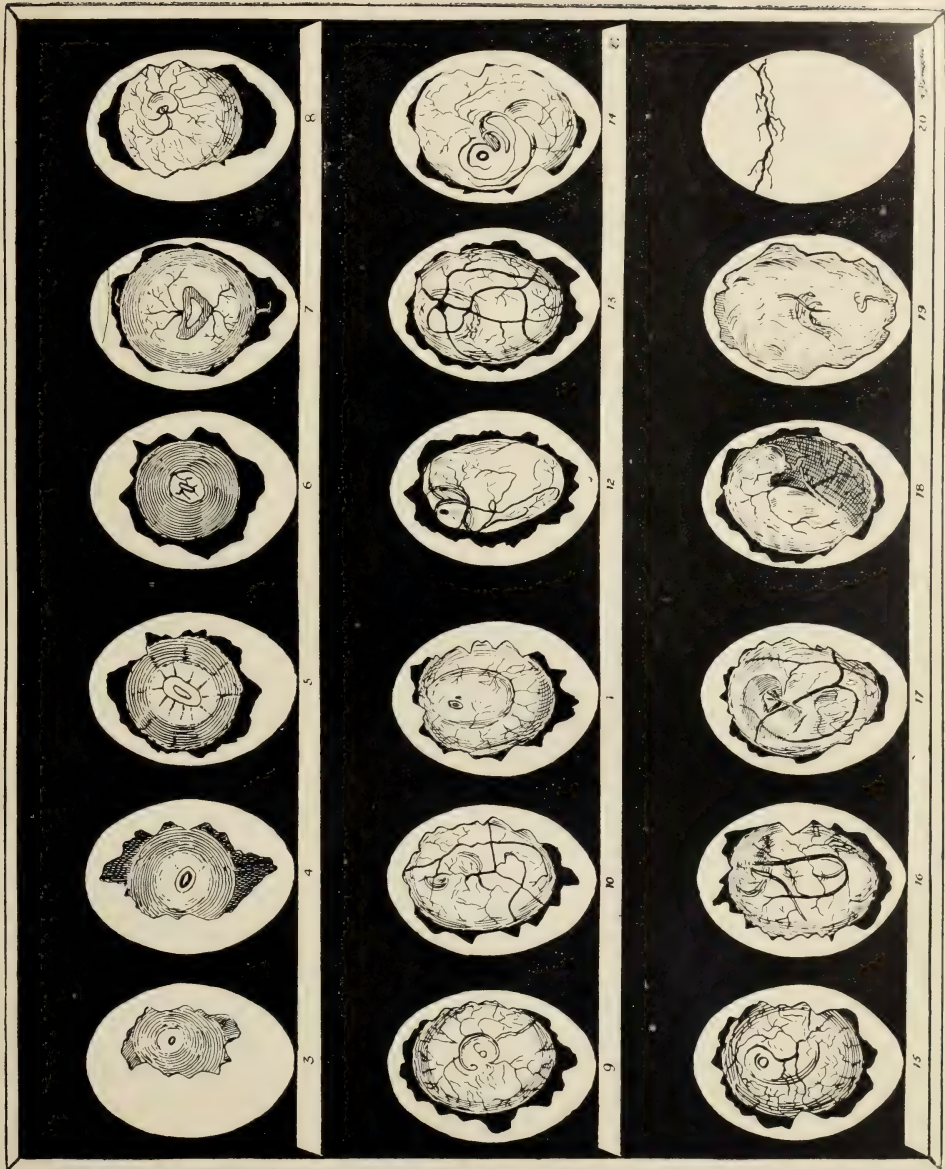


Diagram of Eggs

Showing the various stages of development during incubation from the 3rd to the 19th day
 Kindly supplied especially for this work by Mr. James J. McCue, Hawkesbury Agricultural College, Richmond, N. S. W.

All eggs undergoing the process of incubation should be examined by the aid of a light at the expiration of from five to nine days, as unfertile ones can be detected, and are perfectly good for puddings, cakes, etc.; and, if two hens are now sitting at the same time, the fertile eggs may be given to one and a fresh sitting supplied to the other. To test eggs, obtain a piece of stout cardboard about 6 x 5 inches, cutting a hole in the centre similar to an egg in shape, but a quarter of an inch smaller than an average one, and tack a piece of light wood across the bottom of the cardboard underneath the hole made, with a slight hollow cut out of the uppermost side to act as a rest (see Fig. 18). Place the egg to be tested on the wooden rest, and hold the cardboard between yourself and the light (a lantern is best), when, at the expiration of from five to seven days sitting, the merest novice will discover whether incubation has begun or not. With practice it is possible to discern whether an egg is fertile or not at the third day, as there is, even at this early stage, a marked difference between a sterile egg and one containing an embryo chicken. By taking up a perfectly fresh new-laid egg and placing it under the same examination it will be found quite clear, but if sat upon for three or four days and fertile the difference becomes apparent. With a little practice fertile eggs may be detected instantly and with positive certainty, and after the ninth or tenth day no mistake is ever likely to occur. It does not follow that eggs at this stage, though fertile, will always hatch; many different things may arise to upset calculations between the time of examination and date of hatching. This is but given as a guide to obviate the possibility of the hen sitting on eggs which contain no germ of life.

The fertility of eggs will greatly depend upon the number of hens allowed each cock, and to surrounding circumstances; thus, if kept in a small and confined space, a few hens (three or four) will give the highest

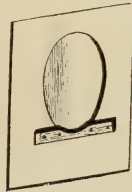
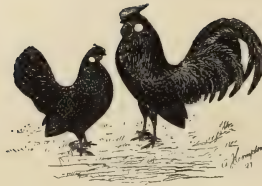


FIG. 18.—Egg Tester, made of cardboard.

results, but if given free range the number may be considerably increased. The different varieties vary to a great extent in their habits. A lively, active bird, such as the Leghorn, Game, or Hamburg, would be able to attend to more hens than a Langshan, Brahma, or Cochin in the same space; and in every case a healthy, vigorous cockerel of any of the breeds will be found more reliable in fertilising the eggs than an old cock of the same breed. A little attention to the appearance of the hens will be a good guide, as if they are found to be devoid of feathers on the back, more hens is the remedy. Most beginners are, however, likely to err on the other side, by allowing too many hens to the cock, and many unfertile eggs is the natural outcome. Practical experience and observation are the best teachers, though, as a guide, it will be safe to allow the heavy varieties—Malays, Dorkings, Cochins, etc.—three or four hens if kept in a confined space, and to increase the number of hens up to ten or twelve if free and unlimited range is allowed. For the lively and active breeds—Minorcas, Hamburgs, Leghorns, etc.—six or seven in narrow limits will be found enough, but in a large and unlimited run twenty hens may be placed with one cock or cockerel. As a noticeable fact, and one taken great advantage of by Breeders of Exhibition Poultry, the fewer hens placed with a vigorous cockerel or two-year-old cock the more cockerels may be anticipated, and the more hens given the same birds will be found to produce a majority of pullets in the progeny. Another point to remember, when purchasing eggs for incubation, is the fact that sterile or barren eggs remain a clear yellow to the last, and if fertile, even if they do not hatch, will be found on examination to explode, or are decomposed to some extent. This is accounted for in many ways, such as getting chilled in the earlier stages of incubation, or being fouled or

slightly cracked, and should on inspection often remove doubts as to their not having been supplied in good faith. It will be found that even to this day there are numbers of persons who cling with great faith to the old superstitions about the moon's influence on vegetation, as in olden times much planting and work generally was regulated according to the condition of the moon. It brings to mind the instance of one young man who had been taught the value of the moon's influence; and he, concluded that, inasmuch as vegetation depended upon the increase and decline of the moon, it would be an excellent plan to run his incubator on the same principle. He, therefore, strictly obeyed the law of increase and decrease, regulating the moisture and ventilation accordingly. His experiments continued through several hatches, with failure in each instance. This was enough, to firmly convince him that the moon did exercise some influence on the hatch, but that he had erred in adding moisture and ventilation when the moon increased, when they should be lessened and *vice versa*, so he reversed his plans, and with but similar results. The fault was with the man, not the moon. There are numbers of others who still firmly believe that heavy thunder kills the chickens in the shells, proving that there is still something to learn in Poultry management; but superstitious people are never very apt scholars, in fact we know of one Fancier, and a successful exhibitor at that, who religiously places a piece of hoop-iron underneath the straw or grass on which he sets his hens—this to prevent any evil effects from thunderstorms. Superstition dies hard, especially the old-time worn theory that "thirteen" eggs or odd numbers are necessary to secure fair success in hatching.



CHAPTER IV.

ARTIFICIAL INCUBATION.

ARTIFICIAL incubation is now a thoroughly well established fact. A vast amount of thought and invention have been devoted to the production and improvement of Incubators which will with certainty give highly satisfactory results if handled in an intelligent manner. The best of the machines, if given proper attention, will give a much higher percentage of chickens than a number of hens sitting on the same number of eggs, there being so many uncertainties in connection with the management of sitting hens. Thus, an Incubator, say, of 100-egg capacity could be managed easier and better than 8 or 9 hens, which would be required to cover the number of eggs stated, and one or more should be part of the working plant of any well-managed Poultry Farm. Hatching chickens by Incubators has many and weighty advantages over the natural method, doing away with the bother and expense attached to obtaining sitting hens, which at times are virtually impossible to obtain, the Incubator being ready "to sit" at any time, and chickens obtained and reared at a period of the year which, under other circumstances, would be almost an impossibility. Again, many valuable eggs that are thin or weak-shelled may with safety be hatched by an Incubator, which if given to a hen would certainly run great risk of breakage, as often a hen will accidentally crush the eggs on the point of hatching if the eggs should happen to be thin-shelled. This is obviated by using an Incubator. Still another solid reason for the use of an Incubator is that the chickens will be free from parasites, and that worst of all chicken pests, the tick; and as the rearing of the chickens by the aid of a foster mother is not surrounded by any great difficulties, it will be seen that, under most circumstances, the use of Incubators is superior to the natural method. We leave the instructions concerning the rearing of the chickens by the aid of a foster mother to be fully explained and illustrated in Chapter VI. on the feeding, rearing, and management of chickens.

Where a large number of chickens are required annually, an Incubator will be found a most profitable investment, and if non-sitting breeds are kept, such as Andalusians, Spanish, Hamburgs, Minorcas, Leghorns, etc., an Incubator becomes a necessity.

As before mentioned in Chap. III., on natural incubation, we remarked on the advisability of selecting perfectly fresh eggs, or those under 7 days old, if intended to be hatched by the machine. The essential features necessary to produce chickens hatched by this method are FERTILE eggs, which must be fresh, requisite heat, air, and moisture, all in the proper proportion. Taking the eggs as being perfectly fresh, their fertility can be discovered in a few days by the method of TESTING, fully described in Chap. III. on natural incubation.

We will now proceed to explain the desired heat required. It will be found that on placing a CORRECT thermometer under the breast of a sitting hen the heat registered will be 103 degrees Fahrenheit, or, perhaps, a fraction of a degree higher. To obtain the correct reading of a thermometer intended to be used, whether too high or too low, as they vary considerably, the following plan will be found absolutely the best:—As is well known, the blood or natural heat of the human body in perfect health is 98.4°—ninety-eight degrees fraction 4— or nearly 99 degrees Fahrenheit. By placing the bulb of the thermometer under the pit of the arm, and against the naked skin, closely pressing to the body for a few minutes, and then taken out and read, will quickly demonstrate whether it is registering too high or too low, and if found *incorrect*, the difference, whether under or over, can be at once marked. Thus, if on testing in this manner it registered 100 degrees, or a fraction of a degree less, the heat inside the Incubator ON TOP OF THE EGGS AND TOUCHING THEM should read between 105 and 106 degrees. On the other hand, if it registers but 94

degrees, this would be nearly 5 degrees lower than the actual temperature. In this case the heat ON TOP OF THE EGGS AND TOUCHING THEM should only appear as 99 degrees, which is, in reality, 104 degrees, or nearly so—the correct heat desired.

The position and location of the Incubator are very important, the best place being a roomy outhouse, free as possible from draughts, and if placed on a stone or earth floor will be preferable to wood, as, having more solidity, less vibration is likely to occur. The regulator plays an important part, and should, in the first place, be adjusted to work between 103 and 104 degrees. The room will, no doubt, vary in temperature—often as much as 40 degrees during the day; but if it can be arranged to keep the temperature at a fair average—say from 55 to 65 degrees—the regulator will work much better. As heat is the first essential to success in hatching, whether natural or artificial, and the correct heat is shown to be between 103 and 104 degrees Fahrenheit, the heat on the top of the eggs must be kept at that uniform temperature as nearly as possible. It will be found that the eggs require a greater SUPPLY of ARTIFICIAL heat during the earlier stages of incubation, as the *natural* heat generated in the shell increases as the chickens develop, so the ARTIFICIAL heat must be reduced to an equivalent extent. This is where the Thermostatic regulator causes an unvarying temperature to be maintained in the egg-chamber, as the surplus heat (that is over 104 degrees) is allowed to escape automatically. The heat may be supplied in two ways—first, by *radiation* from the hot water tank placed above the eggs, or by HOT PIPES; secondly, by HOT AIR from the lamp going right through the egg-chamber. The latter plan is now quite obsolete, as the gas generated by the lamp is objectionable and injurious. The heat should be properly and evenly distributed over the whole egg-chamber, not varying in different parts, which is a failing in many machines. The pure fresh air should be allowed to enter the egg-chamber without causing a draught or current. The best plan to provide the necessary moisture to the eggs is to have the water tray placed underneath the egg-chamber, and all the best machines now have moisture supplied from that position.

After purchasing an Incubator, it is well to work it for a few days before the eggs are placed in the drawer. If it is found to work satisfactorily at the required temperature, the eggs may now be placed in the egg-chamber in straight rows, back to front, and laid end to end of the drawer. They should be turned twice a day—say at 9 o'clock in the morning, and again at 9 o'clock in the evening, or at times which are the most convenient, providing it is done once each twelve hours. This is done to prevent the germ from becoming attached to the shell, and the yolk from remaining on one side, which would be fatal to successful results. The simplest manner to turn the eggs is to take out one row in the front of the drawer, moving or rolling each row into the position occupied by the previous one, placing those first taken out in the vacant space thus made at the back of the drawer. After turning the eggs, they may be allowed to cool for five to ten minutes after the first week of incubation, placing them back as soon as turned for this period. During cold weather five minutes will be sufficient. This is done to allow the eggs to absorb a supply of fresh air, which is highly beneficial to the embryo chicken.

If on TESTING the eggs some are found sterile, these can be replaced with fresh eggs; but this should only be done when a small number are found infertile, and the fresh eggs should be prevented (by placing a piece of wood or cardboard between) from touching those already advanced in incubation. The water trough which supplies the necessary moisture should be replaced daily with water, and a good plan is to sprinkle the eggs with warm water a couple of days before they are due to hatch; but on no account should they be kept out of the egg-chamber while wet, but returned immediately, and when the chickens are hatching, the Incubator should not be opened more than is absolutely necessary.

The thermometer should always be examined when the eggs are being attended to, any deviation from the correct temperature noted accordingly, and remedied at once. The lamp which supplies the heat should always be kept properly trimmed, and not allowed to burn higher than is necessary to provide the required amount of heat, and to prevent smoke or taper. A good reliable regulator to the machine will simplify the working considerably. This is made of two round, pliable brass or copper discs, soldered together all round the edges. This is called a capsule, and contains a mixture composed of 3 parts of ether to 1 part of

methyated spirits (pure alcohol)—20 drops of this liquid are enclosed in the capsule. This will boil at a heat of 103 to 104 degrees Fahrenheit, and, expanding to an enormous degree, gently raises the lever which shuts off or reduces the flame of the lamp when the heat on top of the eggs in the egg-chamber reaches 104 degrees.

The first notices of Hatching Chickens Artificially are to be found in the works of Democritus (Geoponica), Aristotle, Diodorus, and Pliny, and the art has been extensively practised in China and Egypt from an unknown period of time. The Chinese deposit the eggs in sand contained in wooden boxes, placed on iron plates, and kept moderately heated. The knowledge of the Egyptian method of hatching is confined to the inhabitants of Berme and a few adjacent places in the Delta, who travel about the country to perform the process at the proper season. The number of Hatching Ovens, known as Mammals, was in the beginning of the last century 386, and the number of eggs hatched in each is reported to be from 40,000 to 80,000, and the Bermes who conduct the process are obliged to return two chickens for every three eggs given them. Dr. Graves states 200 lbs. weight of litter, or dung of cattle, are daily consumed in heating the oven. This latter is built of bricks, about 9 feet in height, with a gallery in the middle 3 feet wide and 8 feet high, on each side of which is a double row of rooms, each 3 feet wide, 4 feet high, and 12 to 15 feet in length, each capable of holding from four to five thousand eggs, deposited in such a manner so as not to touch one another, and placed upon a mat or bed of flax. At the outside of one angle of the building there is a fire-place, from which the heat is conveyed to both stories by means of flues during three or four hours daily at stated intervals. Ventilators are also used, lest the heat should be too great, the standard of temperature being that of the warm baths of the country. About the middle of January the ovens are inspected and repaired, and as they are public, and as each has a circuit of fifteen or twenty villages, notice is given to the inhabitants, so that they may come and bring their eggs. As soon as a sufficient quantity of eggs are collected, they are put into the rooms that are to serve for the first brood, but only one half of those which the building contains. The eggs are ranged three deep in the lower rooms of each oven, on a bed of chopped straw and dust, which mixture Aristotle, probably, mistook for dung. As the fuel burns away, it is renewed two or three times a day, and the same at night, with the same precaution each time to uncover for a moment the hole in the roof, both for the purpose of renewing the fresh air and for keeping the eggs from the first impression of heat. The fire is thus continued during ten days. After ten days the fires are discontinued, the oven then being not enough to complete the process. A long experience, a skilful hand, and the application of the eggs against the eyebrows are the only thermometers used by the operators for regulating the temperature. During this time the eggs are often turned and examined, and those that are unfertile are thrown aside. On the eleventh day the second batch is forwarded by placing fresh eggs in the interior cells of the ovens left empty in the first instance, and the furrows of the upper cells are filled with lighted fuel. As soon as the fire is lighted in these ovens it is put out in the others, so that the eggs are no longer heated but by the fire lighted in the former, and only receive heat through the side windows in the upper chamber of the ovens, which remain constantly open. The second brood thus got forward. The attendants take from the lower rooms of the ovens first used one half of the eggs to lay them out on the floor of the upper rooms. This change is made because these eggs require the greater care the nearer they draw to the time of hatching. When the twentieth day of incubation has arrived, some chickens are already seen breaking their shells. The greater part hatch on the following day, few hatching on the twenty-second day. The strongest chickens are taken to the room allotted for receiving them, to be distributed to those who furnish the eggs, and the weakly ones are kept for a day or two longer.

To Mr. Le Bert, of Ohio, America, we are indebted for the following interesting and instructive notes on Artificial Incubators, published in "Farm Poultry." This gentleman states in regard to the tank it makes very little difference how a machine is heated, be it by hot air or water. As the air or water does not come in contact with the eggs, but acts merely as a vehicle to carry the heat, it is very obvious that one will answer as well as the other. This fact cannot be controverted. What difference there is in actual practice

is due to the *regulator*, and not the air or water. Taking all things into consideration, I would prefer a hot air machine, for the simple reason that one is not troubled with leaks, rusting of the tank, freezing, and, last but not least, bulging of the tank from the weight of the water. But, you say, hot water circulates freely in the tank, and hot air takes the nearest path to the outlet pipe, and leaves the corners comparatively cool. That is true in a measure, but this fault may be overcome in the following manner. See Fig. 19. Place two partitions in the tank, each one lacking about two inches from reaching the opposite end, and those ends on opposite sides, and you will compel the hot air to travel all through the tank before it escapes. This requires a little time, and, as a consequence, the air imparts the greater portion of its heat to the tank. As to the regulator, I must admit that most of them are unreliable; but I am prepared to back up this statement with facts, all regulation depends upon the expansion and contraction of a thermostat as its motive power. Some of the thermostats are metal, others of rubber, or a composition of rubber. Now, this principle is mechanically incorrect. Suppose, for argument, we take a rubber thermostat, which is pivoted to a balance bar, which raises and lowers the lamp flame; suppose, again, that this will expand one-eighth of an inch to a rise of two degrees of temperature. Now remove the attachments from the thermostat, so as to leave its end free to expand without resistance, you will find it expand one-fourth of an inch, instead of one-eighth, thereby showing that its expansion was interfered with by the resistance of the regulator. The result is, that this resistance will condense or stretch (according to the plan of attachment) to such an extent as to render the thermostat very feeble or useless. This will not take years, but days. A metal thermostat is much worse than a rubber one, as the metal soon becomes rusty, and the continual heat gradually

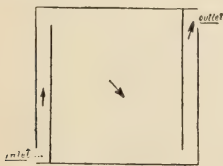


FIG. 19.

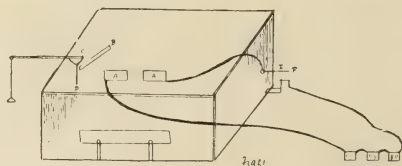


FIG. 20.

removes the temper. In this connection I should like to revive an old friend who was buried long ago, and died because he was not properly understood—ELECTRICITY: The electric regulator of our old-style machines was simply awful. Mechanically, the clockwork motor, the thermostat and the commutator and battery were a nightmare to the Poultryman. You could depend on one or the other getting out of order in the middle of every hatch, and as the average Poultryman is a poor electrician, it meant a spoiled hatch; but, in spite of this, I am going to submit to you an electric regulator which ANYONE can make, and which can be attached to any make of Incubator. Fig. 20. *A A* are a pair of electro-magnets. *B* is an iron armature attached to the balance rod *C*, *D* is a forked iron support, with knife edges for balance rod, *E* is the end of the thermostat, *F* is a piece of iron through which a screw is run, to be moved backwards and forwards so as to regulate the electric contact with the thermostat. The wires are run as follows:—From magnet *A* to the thermostat, around which the wire is wrapped; from the other magnet *A* to battery, from battery to set screw in *F*. Now, the operation is thus: The balance rod is so weighted that it naturally closes the lamp flue, and the armature is raised above the magnets. When the temperature rises the thermostat expands and touches the set screw *F*. This closes the circuit. The magnets draw down the balance rod and open the lamp flue. When the temperature falls the thermostat leaves the set screw *F*, opens the circuit, and the bar falls, by its own weight closing the lamp flue.

To regulate, permit the temperature to rise a small fraction above 103 degrees Fahrenheit, and then set the screw *F* so as to touch the thermostat. The action of this regulator is perfect, for the reason that it is instantaneous. Four cells of gravity battery should be used, and those will be sufficient to run three

machines if connected up in multiple. It is advisable to use magnets of not less than fifty ohms resistance, as they are more powerful, and will permit you to use four cells. Should you use magnets of four weight ohms resistance, they would not operate on four cells at all, as the vitriol resistance of four gravity cells is greater than that.

VENTILATION.

The egg absorbs oxygen and exhales carbonic acid gas. This gas is heavier than air, and, as a result, will settle at the bottom of the egg-chamber. Should the escape of this gas be prevented by faulty ventilation, the embryo chicken will die of cyanosis, or lack of oxygen. This simple fact commends to us the proper plan of ventilation—viz., holes in the bottom of the egg-chamber for the escape of the carbonic acid gas, and an opening in the top for fresh air. The carbonic acid gas and cold air which escape through the holes in the bottom of the air chamber will produce a suction strong enough to prevent the warm air from escaping through the top hole. Fig. 21. If the air vent is arranged as per illustration it will be properly heated by passing alongside the lamp flue. There will be so much warm air in motion and entering this tube that it will be practically impossible for any of the air in the chamber to escape.

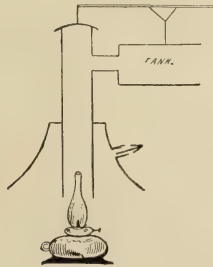


FIG. 21.

MOISTURE.

The directions accompanying most machines call for too much moisture. I am fairly convinced that very little moisture is necessary, and then only at the end of the hatch, about the eighteenth day. There are some, however, who go to the extreme of not giving enough moisture, or none at all. Possibly the best plan to pursue is to notice the size of the air space of the egg. If the air space on the eighth or ninth day indicates much evaporation, place a pan of water in the egg-chamber, and permit it to remain there 24 hours, and then remove it. Repeat this as often as necessary until the eighteenth day, and after that keep water in the egg-chamber until the eggs are all hatched. This observation of the air space in the egg requires great care and judgment. There are no rules to be laid down, experience is the only teacher in this case.

The following descriptions of some of the best Incubators now on the market will, no doubt, be read with interest:—The Johnston's Excelsior and A.B.C. Incubators are manufactured by Mr. R. Johnston, of Chappelow Estate, Hurstville, N.S.W.: The drawer of the Excelsior differs from that of the majority of Incubators, in that the bottom of the egg-drawer is perfectly level, and this is done without sacrificing the advantages of the hollow drawer, *i.e.*, a uniform heat in all parts; in fact, the protection of the outer parts of the drawer is perfect. The tank extends over the top of the egg-chamber and down on each side, connecting the two sides. Underneath the drawer, and at the lowest level, are two broad flat tubes, one at the front and the other at the back of the machine. A projection from the tank at its lowest point extends over the lamp. Thus the sides of the egg-drawer are protected by the sides of the

tank, and the front and back by the tubes immediately underneath. But the advantage of a level egg-drawer, while still retaining a uniform temperature in all parts, though making the process of filling with and turning the eggs much easier, is small compared to the evenness of temperature secured by *heating the current of ventilating air*. The apertures for the ingress of air are immediately beneath the tubes referred to, against which the air rushes, and afterwards passes to the centre of the machine, rising through the holes provided in the moisture pan, which is placed under the drawer, between the tubes entering the egg-drawer through the perforated zinc bottom, and making its exit through the rows of holes at the front and back of the machine. The effect of this is seen in the temperature to be maintained. The correct average heat of the whole of the eggs during incubation is 101 deg. Fahr. In any Incubator in which the heat is solely radiated from the top to the eggs, and in which the thermometer rests at an equal level with the top of the eggs, it must, to give good results, register from 102 to 104 deg. Fahr., the latter heat being necessary in the coldest weather, the former being sufficient in warm. But the average heat is still, or should be, 101 deg. Fahr. The reason for this variation is that in cold weather the difference between the top and bottom of the egg is much greater than in warm, because the ventilating air enters at a lower temperature. This apparent anomaly of different temperature is avoided in the Excelsior, the whole of each egg being kept at a uniform

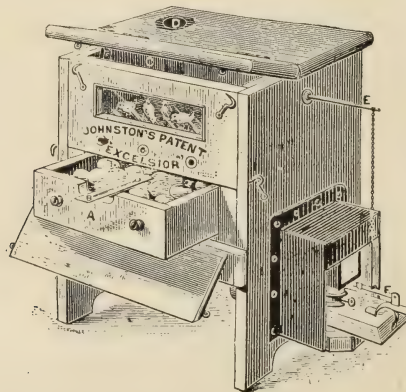


FIG. 22.—Excelsior Incubator.

average-temperature of 101 deg. Fahr. In arriving at the proper heat for artificial incubation it seems somewhat strange to say that the final decision as to what is correct is not taken from any observation of the hen while sitting, but from actual results obtained with the Incubator. Tests of the heat of the side of the eggs nearest the hen's body have been obtained as high as 106 deg. Fahr.; but few, indeed, would advocate this as the correct temperature for eggs in an Incubator. It is generally known that perfectly fresh fertile eggs will hatch a day or two earlier than the recognised time if the heat of the Incubator is maintained a degree or two higher than the proper *average* temperature, *i.e.*, 103 deg. Fahr.; while, on the other hand, a slight lowering of the temperature below the latter will retard the hatching. Here, then, is a definite data upon which to proceed. Ordinarily, fresh fertile eggs should be all hatched out in twenty days twelve hours, or thereabouts.

The capsule used in the Excelsior contains a fluid which, when open to the atmosphere, boils at 100.5 deg. Fahr.; but with the pressure exercised upon it by the various connections it boils at about 1 deg. higher, so that its greatest expansion is at half a degree above that of the normal temperature of the egg. The fluid being a definite chemical compound, and not a mere mechanical mixture or solution, a better and

more even expansion is ensured than would otherwise be the case. The expansion of this liquid in the margin of ten degrees immediately above and below its boiling point is seven times greater than that of any known metal, and it exerts a corresponding amount of force in the work which it has to perform. The bracket in which it is placed is suspended by bolts from the floor of the drying box, where the pivot of the level arm which connects with the lamp is also fastened, so that any warping or expansion, however slight, cannot lengthen or shorten the distance between the capsule and the level arm by even the veriest fraction of an inch, though a minute shift at this point, which is often caused by the greater or lesser pressure of the water in the tank, will upset at times the action of the regulator in a most unaccountable manner. The bracket is immediately over the egg-drawer, and a block of wood placed between the capsule and the tank intercepts the rays of heat from the tank, so that only the heat of the eggs themselves can affect the capsule—a most important provision. The level arm connects with a most simple slide, which rises over the wick of the lamp when the regulator is acting, actually ensuring that the flame is the proper height for keeping the Incubator at the correct temperature. The effectiveness of this method of regulation is proved by the number of Incubators introduced since first the *Excelsior* was brought out, in which the regulator is more or less of this pattern. The regulator is controlled and adjusted by means of a screw, *on the end of the level arm outside the Incubator*, which shortens or lengthens the connection between the lamp slide and the level arm, upon which is a sliding weight, which is placed along towards the lamp, and not removed after adjustment by the screws and end of the lever arm. This method of regulation in the *Excelsior* greatly economises the amount of oil used in heating the water. The arrangement of the tank around the egg-chamber forms a circuit, and the water being heated at one side of the circuit rises, while the colder water from the tubes takes its place, causing the whole body of water to circulate round the egg drawer, and travel to and from the lamp. Thus the whole heat of the lamp is absorbed direct by the water without any waste through intermediate flues.

Until comparatively quite recently it has been a generally accepted theory in Incubator manufacture that to ensure an even temperature in the egg-chamber, the body of water from which the heat is radiated must be large. If the egg-chamber were an isolated space, this would, of course, be correct; but as it is absolutely necessary that it must be well ventilated, the theory referred to must, on close consideration, be found erroneous. Assuming that with the ventilating air entering the egg-chamber at 45 deg. Fahr., a heat of 130 deg. Fahr. would be necessary in the tank to keep the egg-chamber at 101 deg. Fahr. Then if the outside air increases in heat twenty degrees or more, there will be a considerable increase in the interior temperature also, unless the temperature of the tank falls, which it will not readily do if the body of water is of large dimensions. In other words, to ensure the regularity of heat in the egg-chamber the temperature of the water must imperatively vary in inverse proportion to the temperature of the room in which the machine is working. This principle was first recognised in the *Excelsior*, the tank of which contains a small body of water compared to the extent of its radiating surface, allowing it to change its temperature QUICKLY, in response to the action of the regulator upon the lamp. It has often been observed with many Incubators, even with the action of their regulators, that it is compulsory to extinguish the lamp on hot days, and frequently then the temperature will remain too high. Even in the warmest parts of Australia the heat in the shade rarely reaches 101 deg. Fahr. *during the hatching season*, and it is, therefore, a complete anomaly for the heat of the egg-chamber to rise more than a degree or two above this. The sequel is found in the fact that the tank in many machines does not cool quickly on hot days, and, being hotter than the proper temperature for the eggs, accounts for the increasing heat, even when the lamp is extinguished. With the "*Excelsior*" the lamp may be left burning even on the warmest days; the machine answering almost immediately to the regulator, the heat cannot rise. On an exceptionally hot day the tank of a 200-egg machine often registers 102 deg. Fahr. with the lamp still burning, the eggs being 101 or 101½ deg. Fahr. Provision for the chicks when first hatched is provided by a roomy drying-box occupying the whole top surface of the machine. The level arm connecting the pin rising from the capsule with the chain leading to the lamp is fixed inside of the drying-box, in order that the top of the Incubator will be table-like. The chicks are prevented from touching the level arm by a guard placed around it.

The "A.B.C." is similar in pattern to Hearson's machine, having top heat only; the hollow drawer and moisture-pan underneath. The tank is, however, thin, ensuring a rapid correction of the varying temperature, but has a dividing partition inside for circulation, and to ensure an even temperature. The regulator is precisely the same as in the "Excelsior," and the lamp acts directly on the water in a projection of the tank extending over it. The drying-box is large, but is situated on the top of the machine.

Another excellent machine is that manufactured by Mr. William Stewart, of Unwin's Bridge Road, St. Peters, and known as the "Nonpareil." This machine is made of thoroughly well-seasoned timber, one inch in thickness, with dovetailed joints, brass screws being used throughout; the lever is of solid polished brass, the lamp and tank are made of copper, and the water-tray of the best zinc, the maker guaranteeing that none of the parts will get out of order. This machine is easily managed, and is self-regulating. None but the best American kerosene oil should be used in the lamp, and an important point is to *trim the wick* every twenty-four hours. Very high results have been obtained from the "Nonpareil" Incubator, the maker guaranteeing 90 $\frac{1}{2}$ per cent. of chickens or ducks if the eggs are fertile, and on several occasions the maximum result of 100 chickens from 100 eggs has been obtained.

This machine has a greater carrying capacity than stated; for instance, a 50-egg machine takes 55, a 100-egg machine 110 eggs, and the egg-drawer is so made as to allow of being placed higher or lower,

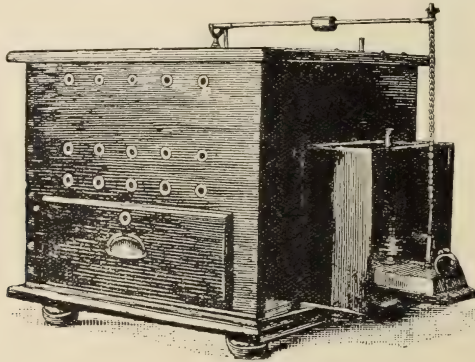


FIG. 23.—Stewart's "Nonpareil" Incubator.

according to the size of the eggs. The drying compartment is also higher than other machines; this allows the chickens to scratch themselves. This machine has a well-finished appearance, and in working does not emit any offensive smell. The maker claims that by his patent the lamp consumes far less oil than others, and this is in itself a big consideration in the cost of hatching, especially where artificial hatching is conducted on a large scale. Numbers of testimonials from Fanciers and Poultry Farmers speak highly of the chickens hatched by the "Nonpareil," the demand being so great for these machines that the proprietor could not keep pace with the orders for some time, but he has now made arrangements by which all orders will be filled promptly, and he recommends the 100-egg machine to be the most economical.

While on our visit we noticed an excellent lamp foster-mother, which will be found useful in rearing chickens hatched by Incubators. This, we were assured, is "perfectly reliable" in the open air, the wind or rain having no effect on the lamp owing to an ingenious contrivance, and being light, is easily portable, the price being within the reach of all.

The "Sidaway" Incubator is also another very complete machine, and gives excellent results in hatching. This machine is manufactured by Mr. A. A. Sidaway, of Cook's River and Park Roads, Tempe. This machine is thoroughly well made, and beautifully finished throughout.

The "Sidaway" is self-regulating. The arrangement being exceedingly simple, there are no complications to get out of order, and the lamp can be left for twelve hours without evil effects following; and, as the heat in the egg-drawer will not vary more than two or three degrees for this period, the lamp can be dispensed with at night, thus minimising the risk of fire—this machine is one of the best and most effective machines on the market. They are made in various sizes, viz., 25-egg, 100-egg, and 150-egg capacity, or any size to suit the requirements of purchasers. These machines are thoroughly tested before being sent out; and the manufacturer, to encourage the confidence of purchasers, will at any time place eggs supplied in the machine ordered, and give the buyer a direct practical test of the capabilities of the machine in hatching the eggs, making a nominal charge for the same. This gives the purchaser an opportunity of having clearly demonstrated the advantages of the "Sidaway." At this establishment there is a very complete lamp foster-mother, with run attached, thoroughly well made, and sold at a most reasonable price. The advantages of a foster-mother become quite apparent when Incubators are used, and the "Sidaway" lamp foster-mother will be found the equal of any other. There are also various other foster-mothers without lamp attachment, which are quoted at very low prices, all very complete of their kind.

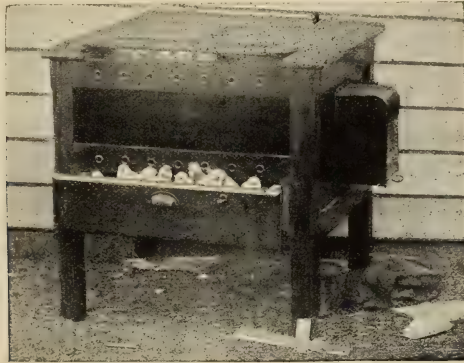


FIG. 24.—The "Sidaway" Incubator.

The Patent "Eclipse" Incubator. This machine is manufactured by the patentees, Messrs. Ellis and Dobeson, Bay Street, Botany, and has obtained a position in the front rank through sheer merit. One of the patentees is directly interested in duck-raising for market, thereby bringing his knowledge and practical experience to bear in the improvement and construction of this machine, the other patentee being a practical mechanic of many years' experience in the manufacture of Incubators. One prominent feature in the "Eclipse" Incubator is the minimum amount of oil consumed, the makers claiming that it costs but 1s. 2½d. per month to run a 100-egg machine, and 2s. per month to run one of 200-egg capacity. This economic result is brought about by the means of pipe-flues running through the water in the tank, thus securing 370 square inches of heating surface. The tank is so formed that it gives all-round heat, top, bottom, and sides securing a perfect circulation to equalise the temperature in the machine. The advantage claimed for this system is that warm, moist air for ventilation is secured instead of cold, as in the majority of other machines, thus providing moisture drawn from warm water instead of cold; and again, that the heat in the egg-drawer need not be higher than 101 deg. Fahr., whereas top-heat machines require 104 deg. Fahr. The circulation is guided by means of partitions running through the tank, so as to secure equal temperature on the sides of the egg-drawer.

The tank is of a most substantial character, the whole of the joints being lapped over and seamed, thus securing immunity from breakage. Copper tanks are strongly advised in preference to galvanized iron, the latter rarely lasting more than a couple of years, whereas the copper tank will last a lifetime. The old difficulty in connection with eggs that are gluey or sticky and difficult to hatch has been successfully overcome in the construction of the "Eclipse." Many Incubators fail in hatching eggs of this description owing to the moisture remaining too long over the eggs, thus creating a clammy atmosphere. It is generally supposed that this sticky substance is traceable to the birds that laid the eggs, by being fed with improper food, and is much more in evidence with duck eggs than with fowls' eggs. The "Eclipse," being essentially a *wet* machine, has a decided advantage over others which require to have the eggs *sprinkled* while undergoing the process of incubation.

Another valuable invention in the "Eclipse" is the construction of the egg-drawer. This is so constructed that the egg-drawer, containing 100 eggs, can be taken out, *the eggs completely turned, and placed back again in the drawer in 10 (ten) seconds.* We question if there is another machine in existence where such a saving of labour can be effected in the turning of the eggs. The lamp requires no filling with oil, as a self-feeding fountain is attached which contains sufficient for one month's supply, and instances have occurred in which two successive hatchings have taken place, and the lamp not touched. The best oil procurable was used. The water-tray is also supplied with a self-feeding fountain, thus preventing the necessity, as in other machines, of touching either lamp or water-tray during the progress of a hatch. The self-regulating gear is

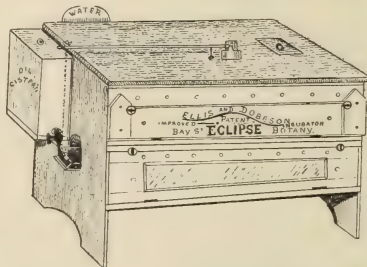


FIG. 25.—The "Eclipse" Incubator.

nically adjusted, being very sensitive to the influence of the capsule in the egg-drawer. A thumb-screw is attached above the chain, to diminish or increase the length of chain in accordance with the temperature in the egg-drawer.

The lamp is fitted to the flue, the extinguisher having a small lead weight attached to prevent the danger of sticking, the action of which assists to remove burnt wick at intervals, it merely requiring a slight touch on the lever-bar to clear all obstructions from the burner.

The drying-chamber in the "Eclipse" is at the bottom of the machine, as it is recognised by scientists that it is more natural to have the heat over the birds instead of underneath. As an example which is forcible, a man standing in a heated brick-kiln will find that the heat has an effect on his system, and weakens his extremities; this applied to young and delicate chickens must have a bad effect, thus proving that top-heat for chickens is far the more rational idea. The thermometer is carefully tested and corrected to the proper scale, and, as a further guide, if the machine has been running steadily at a uniform temperature of 101 deg. Fahr., and the birds are out of the shell one day before their time the glass has indicated 1 deg. too hot, and if two days 2 deg.; and if, on the other hand, hatching is delayed the thermometer is registering too low. To a certain degree this holds good either way, but after that it is death to the chicks.

An interesting experiment was tried by Messrs. Ellis and Dobeson in keeping the temperature at 94 deg. Fahr., the chickens hatching seven days after their proper time, but the birds were extremely weak, the tem-

perature provided being 7 deg. Fahr. too low. Again, experimenting with another batch at 104 deg. Fahr., the result being that the birds hatched three days before their time. Numerous and lengthy trials have been given for the sole purpose of perfecting and discovering the best results to be obtained by the different heats in the egg-drawer. Printed instructions are sent out with each machine, novise difficult to understand, and any further information is promptly given by post for the asking. In all cases the makers give a guarantee, and we inspected a number of testimonials as to the merits of the "Eclipse" Incubators which stated that 90 to 100% of fertile eggs hatched.

In giving our readers an outline of the various machines now on the market, we conscientiously state that we have no preference for one individual machine, but have taken delight in drawing attention to the more prominent features in all the machines under notice. Our solid advice is, that when selecting the Incubator which is considered to be the best in the purchaser's opinion, and calculated to perform the work asked of it creditably, it is wise, first of all, to take pains to see what you are getting for your money. Common sense will be the best guide. See how the tank is made, and ask for an explanation of every detail, not being led away by mere outside show of brasswork and glittering varnish (though both are good in their place if the machine is internally correct in manufacture), as the whole of the manufacturers of the Incubators we have noticed will be only too happy to give all the information and explanation required to likely purchasers. This trifling hint should be worth remembering.

Prize Incubators should also be carefully examined, as it is an impossibility to award a trophy for practical use to an Incubator shown at an Exhibition without a thorough test taking place. Workmanship and material may be all desired, but, as Incubators are not required as mere ornaments, something else beyond gaudy show appearance is necessary.

To the extreme kindness of D. F. Laurie, Esq., of Adelaide (S.A.), we are indebted for the following illustrated, interesting, and instructive article on Artificial Incubation. Mr. Laurie states: I do not purpose giving a detailed history of the Incubator, beyond saying that Artificial Incubation was known to both the Chinese and the Egyptians thousands of years ago, and is still carried on by them to a very large extent. The first European Incubator was made about 1777, and was made after the style of a water-cushion, and filled with warm water. It was known by the highly euphonious name of "ECCOLEBION." The inventor was M. Bonnemain, a Frenchman. For a long time the first machines were without boilers, and the heat of the water in the tanks was renewed from time to time by drawing off a portion of the contents and replacing same with boiling water. This clumsy method was superseded by kerosene or gas, and attached boilers. There are at present hundreds of Australian, English, and American machines, all advertised to perform wonders, but all more or less with great faults. Some are designed on unscientific principles, although supplied with good regulators, others *vice versa*; in fact, it is astounding how very limited are the thinking powers of most makers. Several different styles are procurable that will give better averages than any given number of hens, and, moreover, will produce chicks equal in stamina, size, etc. They are little trouble to manage, never desert their eggs, and can be successfully managed by a child. I may further add that, being frequently consulted as to machines, it becomes very awkward not to be able to recommend machines in which the construction is evidently opposed to proper principles, although one would very much like to recommend a good one. The price charged for Incubators is a great deal too high. Anyone handy with a soldering kit and a few carpenters' tools can make one at a fourth the cost, or less, of most makers' charges. Of course, it will be necessary for him to have proper working drawings, also specifications and proper directions for working. If, however, any Fancier of an ingenious turn wishes to strike out in a new direction, with a view to an improved machine, it would be advisable for him to follow the history of the Incubator, and make himself master of a few leading points of mechanics. It is not uncommon to see arrangements of Incubators put forward as novel, when in reality they were discovered, perhaps, in the earliest attempts.

THE ELECTRIC INCUBATOR.

In 1886 it occurred to me to adopt the electric thermometer to the purposes of regulating heat. So far it had been used merely to sound an alarm. I had to contrive a rough thermometer, and altered an

ordinary bell battery so that, when the current passed through, instead of ringing a bell the armature was attracted to the poles of the magnet, thereby opening a damper that was carefully hinged. The machine in my hands was a great success, but the mechanism was too delicate for ordinary use. I used ordinary Le Clanché cells, but recommend the Daniell's as being more constant. I afterwards had some special thermometers made for me by Casella, of London; they were obtained through Mr. Boettger, of Adelaide (S.A.). Some years afterwards I noticed in a Sydney paper that a patent had been taken out in England for this identical thermometer, under the name of an "Electric Thermostat." Mr. Boettger has a press copy of the original drawing. A friend of mine had an electrically-regulated machine, but he broke all the stock of the thermometers, and I then thought out the regulator described in the following lines. This was in 1890. In other respects both machines were identical. I herewith give explanations and diagrams.

HOW TO MAKE AN INCUBATOR.

The following sketches are not drawn to scale, but a full explanation should remedy any such deficiency. Incubators may be made of any size, from 1-egg up to 1,000-egg capacity. If larger machines are required it is better to construct them on a different principle, although retaining the main points. There are already numerous machines on the market, some good, some indifferent; all have their champions, but we do not

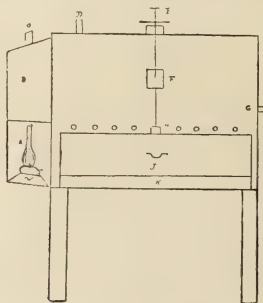


FIG. 26.—Front Elevation.

deal with them, beyond stating that the general shape of the machine here explained is similar to that made by Messrs. Christy, Muir, Hearson, and others, and is the result of much careful experimenting also.

MATERIAL.

The woodwork may be of American lumber (shelving), flooring-boards, red pine, clear pine, or cedar; it must be well seasoned, and free from knots, etc. There are other woods which would, no doubt, do; but the above are fair. For the outside casing the wood is to be from three-quarters of an inch for small, up to an inch and a quarter for the very large machines. The case may either be screwed together or dovetailed, according to the wishes of the maker. The double mitre joint is a good one for the purpose. The stops, fillets, etc., to fix the tank may be of any sort of wood. The runners for the drawers should be of hardwood, and well soaped or black-leaded. The tank and boiler may be made of best galvanized iron, 24-gauge, or, if great durability is expected, sheet copper or brass may be employed.

Fig. 26 shows the general appearance of the machine when looked at from the front. Here the machine is standing on legs, which may be of any convenient height. The lamp-house and boiler are at the left-hand end of the machine, the tap or outlet at the opposite end. Underneath the egg-drawer is a space about an inch and a half deep, to contain the pans to supply the eggs with moisture during incubation. The lamp consists of a tin reservoir and a Bismarck burner for the larger machines, and for the smaller ones the Aladdin burner without a chimney, or with a cardboard chimney and mica-covered opening. The small

machines require very little heat, so that a very small lamp will suffice; for large ones requiring more heat the Bismarck 3 and 4-inch circular burners are most satisfactory, and perfectly safe. The top of the chimney should be about half an inch from the bottom of the boiler. The best thermometer is a round glass one, about a foot long, procurable at a cost of three or four shillings, accurately tested. This rests on the eggs, and is inserted through a hole in the front of the drawer; a piece of ribbon attached to it permits it to be withdrawn at any time.

Fig. 27 shows the plan of the top of the machine, and position of inlet, outlet, damper, and regulator rods.

Fig. 28 shows a cross section through the centre of the machine, with the regulator in position; *D* is the thumb-screw for adjusting the damper, *E*, which is made of thin metal and circular, rather larger in diameter than the regulator-flue, *F*. This flue, when opened by the regulator carries off any excess heat from

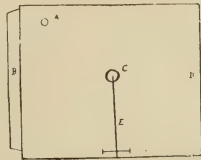


FIG. 27.—Plan of Top of Machine.

the egg-drawer itself, therefore that portion of the machine can never get beyond the required temperature. *A* is the adjusting-screw of the regulator, and by means of which the machine may be set to a fraction of a degree of any desired heat. *G G* shows the boiler, with the circulating diaphragm. *C* and *J* are the bearings of the regulator. *K* is the capsule, which on expanding, forces up the short end of the lower rod, and thereby depresses the long end, and in turn, pulling on the bearing, *C*, causes the damper, *E*, to rise sufficiently to allow the surplus heat to escape, when the damper, *E*, will again close the flue, *F*. *L* is an iron bar one inch wide by a quarter thick, extending from front to back of the machine, and on which the bearing, *J*, is screwed, and the capsule, *K*, rests. A plate of metal about 18-gauge should be placed on the rod, under the capsule, to prevent the latter from buckling. It will be noticed that the tank is domed from front to back, and that the bottom of the egg-drawer is correspondingly dished; this is to ensure that any egg

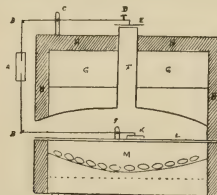


FIG. 28.—Cross Section, centre of the Machine.

gets an equal amount of heat to any other, no matter in what part of the drawer. In small machines, say under 30 eggs, the bottom of the tank may be flat, the *drawer only* dished, but in the larger machines the doming and dishing increase with the size. There is a packing of sawdust well rammed on top, sides, and ends of tank; the casing up to level of bottom of tank is made double, also the front of drawer. For the bottom of the egg-drawer use half-inch mesh wire netting, and press into the shape required; spread a piece of porous flannel over the netting, for the eggs to lie on.

Fig. 29 shows the bottom of the machine, with holes bored for ventilation. These may be of half-inch size; the centre group of large ones, say one-inch, should be provided with a sliding cover, as they are only required occasionally, as will be pointed out later on.

Fig. 30 gives a longitudinal section of the machine, and a glance will explain matters fully. *A* is a section of the top rod of the regulator; *B* is the damper; *C* is the inlet for filling the tank; *D* is the outlet for emptying the tank; *E E* is the diaphragm, which, it will be noticed, extends to within a short distance of the end of tank opposite the boiler, and the use of which will be explained later; *H* is the outer shell or jacket of the boiler; *I* is the boiler, circular in shape; *K* is a section of the bottom rod of the regulator; *L* shows dish of the bottom of the egg-drawer; *M* is where the evaporating-pans stand; *N* is the lamp. Here again the double wood of the sides up to boiler level of casing is shown, also the sawdust packing round tank. The boiler is packed in cowhair, well rammed, as it is better than sawdust for the purpose.

Fig. 31 shows a detail of the regulator and fittings which explains itself. *A A* are hinges, and may be made by cutting a notch in top and bottom rods, and forming the ends of upright rods into hooks. The

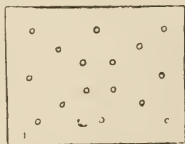


FIG. 29.—Plan of Bottom, showing Ventilators

bottom rod should be pivoted at bearing or fulcrum, about an inch and a half from the turned-down end which rests on capsule. The top rod is pivoted the same. In the front or vertical rod of the regulator the top half has the end screwed with a fine thread; the lower half, which passes through the bottom of set screw, has the top riveted so as to allow the set screw to turn round. The damper may be suspended by a wire hook or loop, and may or may not have an adjustable thumb-screw. The top and bottom rod may be of square iron, a quarter of an inch thick; the front rod may be made out of two pieces of bicycle spoke-wire. The bearings, as shown in Fig. 32, should be strong and not set too closely together, or else you will get a side motion of regulator. The whole must be true and nicely-fitting. The rods, complete for any size machine, can be obtained in Adelaide.

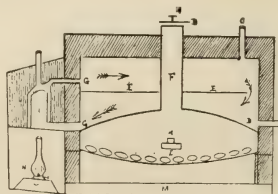


FIG. 30.—Longitudinal Section, middle of Machine

In fitting the tank into a machine, it should rest just slightly on the top of the double casing, and should be supported by two cradle-bars of dimensions according to size of the machine; for the large machines these cradle-bars must be heated, and fitted exactly to the doming of the tank. For the outlet a tap may be used, or a small dead-end, which is obtainable at any ironmonger's. The boiler consists of the cylindrical inner boiler, which is full of water—*I* in Fig. 30—and the outer shell or jacket, *H*, which has a small chimney to carry off fumes of lamp. The object of the jacket is that the heat of the lamp, after striking the bottom of the boiler, passes between it and the jacket and out at the top, so that all the boiler is a heating surface. They act very well, and are the best. Looking at Fig. 30, it will be noticed that when the tank is full the boiler is also full; the heat of the lamp causes the heated water to rise and pass through the pipe, *G*, into the top compartment of the tank, and as long as the heat continues the water must circulate. It goes along the top compartment till it gets to the space at the end farthest from the boiler, when it descends into the lower compartment and goes back to the boiler to supply the water which the heat, by expansion, etc., is

forcing out. The pipe from the bottom compartment of the tank to the boiler is placed about an inch above bottom of tank; thus there is always a layer of an inch or so of water, which has such a slow circulation that it acts as a sort of cushion and prevents rapid changes in heat of the bottom of tank, which is a great advantage.

The diaphragm or division in the tank fits exactly, and is soldered at the boiler end and at the sides, and stayed top and bottom; it converts the tank into a large pipe, and the circulation of the water is very perfect. The open space may be about half an inch to one inch wide.

The flue for a 30-egg machine is 2 inches, for a 50-egg 3 inches, and for a 100-egg machine 4 inches in diameter, and may be a piece of good down-piping; it must be carefully soldered in so as not to leak, in fact every joint must be perfect. The tanks and boilers can be bought for from 15s. to 40s., according to size.

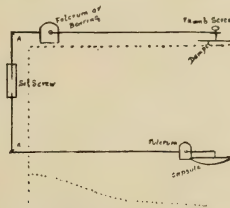


FIG 31.—Detail of Regulator.

Any intelligent tradesman could make a machine from above drawings. The capsules, which contain ether and alcohol, are obtainable for about 2s. 6d. each, or less. They are somewhat difficult to make. The evaporating-pan is same size as egg-drawer, and about an inch deep; in the centre there is to be a hole 2 to 4 inches in diameter, according to size of machine; solder round the edge of the hole a ring of metal an inch and a quarter high. This hole then fits over the large ventilating holes in the bottom of the machine (Fig. 29), and on filling the pan put a piece of cheese-cloth over the hole, with its ends in the water; then all the air that passes into the machine from this direction will be charged with moisture. For ventilation use a half-inch augur, and bore holes all round the casing just under the tank, and about 3 inches apart. Some amount of discretion must be exercised so as not to produce draughts in the machine. The air should come in from below the egg-level, and, passing through the machine, pass out of the ventilators at top. In cold

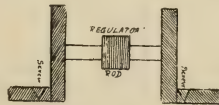


FIG 32.—Detail of Fulcrum or Bearing.

weather far less ventilators are required at the bottom than in hot weather. A machine similar to above, of amateur make, hatched 30 out of 34 eggs the first trial, and I have often hatched *every egg*, and always over 90%, and get fine strong chicks.

The sawdust packing on top of tank should be not less than 4 inches, and at sides and end 1 inch, well rammed.

The egg-drawers should be about 6 inches deep. If necessary to have two or more drawers the make is the same, making the bottoms of the drawers part of the arc of a circle, for the dishing.

The best place to put an Incubator is in a well-ventilated cellar or underground room, as there is a more equable temperature there, and not so much vibration. However, any place that is not too exposed or draughty will do; but, of course, there will be less trouble and less kerosene oil consumed if the situation be

good. It does not do to have the machine on a boarded floor where people are constantly walking about or slamming doors, as the vibrations and jars are deadly to the embryo chick, and many of those that do hatch will be deformed. If the machine has to stand in a living room or kitchen, place indiarubber packing under the legs of the machine.

Having decided on the spot for the Incubator to stand, get it into position facing the light if possible, so that the thermometer can easily be read. See that it stands quite level and firm, and then fill with boiling water, first removing the capsule which works the regulator. The object of using boiling water is to heat the machine throughout thoroughly; the woodwork, packing, etc., all absorb heat, and it is better to have the machine too hot at first, and let the heat gradually absorb and diminish. Rock the machine gently, so as to allow all air to escape from the tank, and do not fill to overflowing, but just to the bottom of inlet pipe. All the ventilators, both at the sides, ends, and bottom, may be plugged with corks for the time being. If preferred movable covers may be provided for the ventilators, the underneath ones working with a piece of wire at front or side of machine.

Line the egg-drawer with a piece of thick, porous flannel, and insert the glass thermometer through the hole in front of the drawer. Put a block in the drawer the height of an egg for the thermometer to rest on until the eggs are put in; thus you can get the correct temperature while testing the machine. The temperature at the bottom of the drawer is, of course, less than at the egg-level. I have seen people place eggs on top of others, and fondly imagine they will produce healthy chicks, although subjected to at least 3 deg. more heat. Then light the lamp, and see that it burns properly, and that it can be turned up or down freely. Remember, under no circumstances must the lamp be allowed to smoke in any kind of Incubator, as this closes the flues and coats the heating surface with a non-conducting material, lamp-black. Using a Bismarck burner, the chimney may be half an inch from the bottom of the boiler; a lamp without a chimney, not closer than one inch. Use only the best kerosene; it is cheaper in the long run, and is much safer, as the flashing-point is so much higher. Let the machine stand now for a few hours, and from time to time watch the thermometer; as a rule, in an hour it will show about 108 deg. Now test the water in the tank, and make a note of the temperature; repeat again in an hour, and see if the lamp is powerful enough or otherwise. By this means you will discover the height of flame necessary, as there is no use in wasting kerosene. After a few hours turn down the lamp, and let the machine cool down to 103 or 104 deg. Then put the capsule on its stand; see that it has a fair bearing, and that the turned-down end of the lower rod of the regulator is in the circular bearing, then close the egg-drawer and take in some of the slack of the regulator by turning the adjusting screw, and as soon as the thermometer registers, say, 101 deg., turn the adjusting screw until the damper just rests lightly on top of the flue. If the regulator is made properly it will now act; if the front rods are too long, and the adjusting screw too short, take off the top bearing marked "C" in Fig. 28, and place a piece of packing under it of the required thickness, and screw the bearing on again. If the thermometer stands exactly at 101 deg. you will know that all is well, and if the machine is well made all the ventilators are properly balanced, and the lamp is not too high or too low. You will always find the damper hovering over the flue, and if you touch it you feel the contact of the two metals, the damper swinging clear when you lift the finger. While testing the machine get ready the eggs and Incubator book. You will always get the best results from fresh eggs, say none more than a week old, and by filling the machine straight off. Have the eggs all one size, rejecting those of small or extra large size, or in any way malformed, or with harsh rough shells. Put a cross or distinguishing mark on each egg with a lead pencil (black, not aniline). Take out the egg-drawer and pack all the eggs with the mark uppermost, packing the drawer as full as it will hold; see that the thermometer runs in and out easily, and lies fairly on the eggs, then shut the drawer and wait awhile. It generally takes some hours before the eggs absorb sufficient heat to allow the thermometer to register 101 deg. Those machines in which the thermometer is some distance above the eggs do not show the exact degree of heat at all times, but when the thermometer is at the egg-level you know the temperature of the part that concerns you. If none but stale eggs are to be had it is advisable to start the machine at about 90 deg., and let it gradually work up to 101 deg. during not less than 24 hours, because the greater

the age of the egg the less the animal heat contained in it, and the weaker the germ ; therefore it is necessary to restore the original heat of the egg itself previous to starting incubation. A trial will soon prove this. In fact, in Nature a hen lays a certain number of eggs before going broody ; at the date of going broody the first egg may be a fortnight old, but watch the hen. She lays an egg, and soon goes away cackling ; as the eggs increase in number so she stays longer on the nest, and by her own bodily heat renews that which the staler eggs have lost. When she stays a long time on the nest we say she is going "broody," and finally she does not leave the eggs until hatched, except for food, etc. The Incubator eggs should be turned twice a day half round ; if not convenient once a day will do, but the percentage of chicks will not be so high as if turned twice, while even three times is advisable where one has the time and a large number of machines, or large machines. A hen is constantly moving her eggs, and also constantly changing their position for ventilation purposes. The reason for turning eggs is this : The yolk is anchored in a double manner (when lying on its side) from above and below. The top connection being slack when not in use, the yolk floats with the germ on the upper part, and the lower ligatures anchoring the yolk are in tension. As soon as the egg is placed on its side, the yolk gradually rises until the ligature is taut, and then a scarcely perceptible upward motion continues, gradually stretching the ligatures till they not only lose tone and elasticity, but the yolk itself, as that part where the germ is situated comes in contact with the inner lining of the shell, undue evaporation, etc. takes place, and the

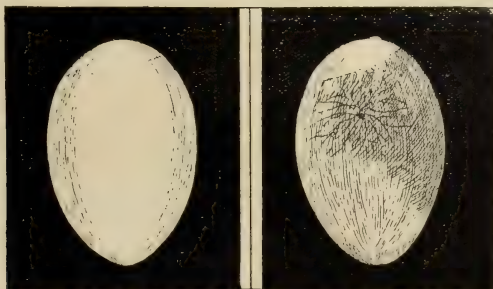


FIG. 33.—Clear or Barren Egg. FIG. 34.—Fertile Eggs at about the fifth day.

germ is destroyed. Some eggs seem to lack tone and elasticity and toughness in this ligature, with the result that under ordinary conditions they will not hatch, but would do so were the position continually and frequently changed. After incubation begins the albumen in the egg changes, and becomes much less dense, and of a very liquid character, and as it, therefore, exerts less pressure on the yolk, the ligatures have a greater strain on them. Observant Fanciers may have often noticed a small dark speck, varying from the size of a pin's head to a pea (according to the stage of incubation), which adheres to the side of the egg. This is a case as above, where the yolk has risen to the top, and the germ perished. Eggs will keep longer in cold weather than in warm, on account of the different density of the albumen (that is, fertile eggs). At about the third day for white-shelled eggs, and the fifth for dark or tinted ones is a good time for testing. All clear eggs can be used for household purposes up to the eighth day, after that they can be used for chicks, but even then they excel the average shop "fresh egg" in quality. I have often had all the eggs hatch out during the night, only one or two being "pipped" the previous evening ; but all the eggs in the machine were quite fresh when put in. Fresh eggs always hatch first, and may be recognised by the small size of the air-bubble or chamber. Leave the chicks in the machine till dry, and then transfer to the drying box, with which some machines are provided. I use a small cocoa box, lined with flannel or anything warm and soft, and placed in the vicinity of the Incubator lamp. Leave them for, say, 24 hours, warm, but not

smothered up. They will then be ready for their first feed. At the end of four or five days the eggs can be tested to see if they are fertile. On sunny days the eggs can be tested by making a tester, composed of several thicknesses of brown paper rolled on a stick of about an inch and a half diameter, and then pasted. Hold the egg with thumb and finger against one end, and hold to the sun. The contents of the egg will be quite visible, and should appear as in Fig. 33 if clear or unfertile. If fertile, the appearance of the egg will be as in Fig. 34. The embryo will look like a small spider, with long red legs, and will move freely in the egg. Persons of extra good sight can detect the embryo in a white-shelled fertile egg at the end of 24 hours. Eggs may be tested by artificial light by means of a piece of cardboard, say 6 in. square, with a hole the shape of an egg, but of smaller size, cut out of the centre. Hold the egg tightly against the hole, and then hold near to a good lamp. A powerful apparatus for testing large numbers consists of a reflector lamp, focussing lens, and egg-shaped hole, all made in one. These act very well, and can be made for about 10s.

At this period all the smaller ventilators may be opened, gradually opening the larger ones so as to have all open at the fifteenth day. See that the evaporating pan is kept well filled. Do not sprinkle the eggs, as they are sure to get chilled; but after the tenth day, and until the fifteenth, fill the pan or pans with hot water—say 150° to 180° —every other day. The steam will ascend, moistening the flannel lining and also the eggs; after that date, use the hot water every morning. Use judgment as to the heat of the water put in these pans, and consult the thermometer, as if the water used be too hot it will increase the heat unduly. It will very likely register 104° to 106° , but as it is a moist heat, and of short duration only, it is of no moment. If too hot water be used it will raise the damper, and cause a draught. About the eighteenth day examine the eggs again. If the chick is alive, you will see it moving about; but if it remains in one place, as if attached to the shell, it is dead, and the egg should be removed. The eggs can be examined from time to time afterwards. About 24 to 36 hours before hatching a tremor will often be noticed in the division which forms the air bubble or chamber, and some hours before hatching the chick bursts through the division. His head is discernible in the air space, and he soon starts to get out of his prison. As soon as he has effected a fracture of the shell it should be turned fracture upwards, as the exertion makes him require more air. Leave the machine alone during hatching, visiting only to turn the fractured eggs. If the drawer be constantly opened the machine becomes cooled at a time when all the heat is required to counteract the evaporation and consequent cooling caused by the presence of numerous wet chickens. Chills at this stage are responsible for many chickens dying in the shell.



CHAPTER V.

GENERAL MANAGEMENT AND FEEDING OF ADULT POULTRY.

THE question of cost in maintaining fowls that are kept in a confined space, or which have free range, the kind of food and proportion in which it should be supplied to keep the birds in perfect health, and with their laying capabilities fully developed, require extensive knowledge, which can only be gained by practical experience. Poultry, more so, probably, than other bird life, must be systematically fed under all circumstances if profit is desired. Fowls that have unlimited range can and do find their own living to a great extent, thus reducing the cost of their keep to a minimum; but if over-fed under these conditions will become lazy and too fat, the natural result being that needless expenditure is entailed, and occasional and serious loss arises from the birds not being in a fit condition to perform the duties required. Many an error is made by beginners and others who keep Poultry in holding the belief that any sort of inferior grain or other food will do for fowls. This is a mistake, there being such a vast difference in the economic value of grain and other foods. We are fully aware how difficult a task it is to convey to many keepers of Poultry, who will not give the question of feeding the birds the close attention it deserves, the exact manner and proportion in which it should be done; if a definite line of procedure is laid down they will follow it out, but not otherwise. This cannot be laid down with any certainty, as birds are kept under a thousand and one different circumstances and surroundings; therefore, it is not possible to give positive directions for the guidance of all.

An observer of the methods of Poultry feeding will notice that in many instances the birds are generally over-fed, no consideration being given to the fact that fowls, of all bird life particularly, will gorge themselves if allowed to do so. This must be avoided, as this failing is a sure forerunner of their systems getting into a state of disorder, and death or heavy loss in egg production occasioned. Fowls, no matter of what breed, that are kept for laying purposes, should be kept in *moderate* condition, and should run greedily for their food on the appearance of the attendant; if they do not, something is amiss (which requires prompt attention when this is noticed). *Missing one meal entirely will often rectify matters.* Poultry require feeding with good, sound grain, not miserable samples, which contain little nourishment, and it will never pay to buy up cheap inferior food because it is low in price. Grain is, to a great extent, the natural food of fowls; but the same applies to nearly all forms of insect life—worms, grubs, etc., and if on a free range, where the latter can be obtained in abundance, very little bought food will be required, and it will be found that the birds prefer that which they can find themselves. If they are confined in small runs or yards where there is no possibility of obtaining any food but that supplied to them, the following rule will be found advantageous:—Feed as early as possible in the morning with pollard mixed with boiling water, not in a sloppy or sticky condition, but mixed thoroughly—short, as it is called—which on being placed in the feeding trough, or thrown down on the ground, crumbles apart. There are different degrees of mixing this judiciously, but with a little practice, if a regular number have to be fed each morning, no mistake will be made; in fact, it is better to have it a little dry rather than to feed it sloppy.

Our plan is to use a large tin dish kept for the purpose, about 12 inches deep. Place in the pollard, which can be measured the first time by calculating the number of birds kept, and the variety to which

they belong, some breeds, of course, requiring twice as much as others for their sustenance, as it will be understood that to feed Bantams with the same amount of food given to Brahmas would be absurd. Then with a piece of round stick, about 18 inches in length (portion of an old broom handle will be found to answer admirably, and if a piece of string is placed through a hole bored in one end, and tied in a loop to hang up after using, will save a lot of trouble in hunting round when required), the food can be thoroughly and properly mixed by stirring round briskly, and if boiling water is employed, it will be found as easy again to mix than if cold water is used, and is certainly better, the food being given the birds in a partly cooked condition. For birds on an unlimited run the pollard may be dispensed with, a small feed of grain being the best for Poultry kept under these circumstances. Should the birds be kept in confinement, it will be imperative that they are given fresh green food daily, no matter how small the quantity, they must have *some*—lettuce, turnip tops, cabbage leaves, fresh cut grass, green barley, oats or dock leaves, thistles, etc. This should be given at mid-day, and will greatly assist in keeping the birds in good health and condition. Where a small grass run is at command, this may be dispensed with in part or entirely, but at any time is a good change. Poultry have a decided liking for green food in almost any form. A small amount of meat given the birds, such as bones from the table, or, better still, a sheep's heart and liver (which can be purchased at from one penny to twopence each), well cooked and thrown to or hung up within reach of the birds once a week, will considerably augment egg production, and keep the fowls in good condition. This, with a feed of good, sound grain (wheat or oats being the best) in the evening, will be about all the attention necessary as far as feeding is concerned. Water must be supplied pure and clean, and placed in a cool and shady spot—not, as often the case, exposed to the rays of the sun. This is frequently the cause of many losses by death and disease, and should be guarded against.



FIG. 35.—Earthenware Drinking Fountain.

Pots to hold the water, made of ordinary earthenware, which can be purchased for 3d. each, in size to hold a gallon, are quite the best; larger will be required if a number of birds are kept, the size quoted answering admirably for a cock and six hens of the major breeds if fresh water is given daily. We incline to the earthenware pots (see Fig. 35), as they are so easily cleaned or scrubbed out, and the water during the summer months will keep cool in them, owing to the evaporation which takes place.

In giving a guide to the grain foods which form the staple food of Poultry, most writers state that corn or maize is objectionable, having a tendency to cause the birds to become too fat. With this we agree to a certain extent, but only so far as to say that for feeding the birds regularly, maize would be unwise. Our experience has proved that for a change given once a week the birds will be found to relish it more than any other form of grain, and as a CHANGE of diet we strongly recommend it, and have proved the birds are benefited in a marked degree.

Taking the different foods as to their economic values, oatmeal stands well up on the list as a good and highly nutritious food—oats, pollard, wheat, buckwheat, barley, peas, maize, in their respective order. The alphabetical list of the various foods given in this chapter shows an analysis of the respective qualities of the various foods suitable for Poultry.

Hens that are laying require much more food and shell-forming material, such as lime in some form or other, and food must be supplied with a more generous hand than when the same bird is in a normal condition, as the daily production of an egg is a severe drain upon the system. Cold and very wet weather has an effect in retarding egg production, which, however, can be assisted by giving more warm food at this period. In severe weather, corn will be found a useful food, but in hot weather should be discarded for other grains, such as wheat, barley, or oats. Feeding the birds liberally when moulting will well repay the extra trouble and cost; and to facilitate the change of plumage, flour of sulphur is excellent for the purpose, though during excessively cold or wet weather it must be strictly avoided. One

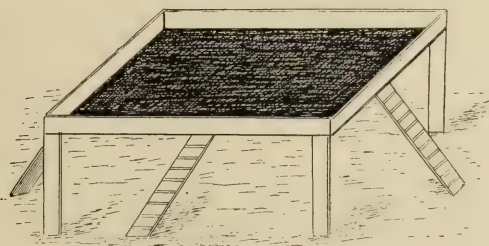


FIG. 36.—Feeding Trough for Poultry.

teaspoonful to each 10 or a dozen adult birds will be quite sufficient, given two or three times weekly, mixed in the soft food. The morning meal of pollard especially should be increased at this stage, the casting off of old feathers and renewing being a great strain on the birds. If a small quantity, say a handful, of bone meal—or, as it is generally called, bone dust—is mixed with the soft food on intermediate days with the sulphur, this will be of marked advantage. We often read glowing accounts derived from the use of spices and tonics. These would not be necessary if the birds were provided with a proper food supply, varied to suit the differences of climate, as, after all, they are but



FIG. 37.—Feeding Box for Ducks.

artificial stimulants, having only a temporary effect, and if given in large quantities are certain to have a deleterious effect. If a tonic is required, a pinch of Epsom salts, given in a teaspoonful of water, will be of marked benefit, and act as an excellent tonic, without purging the bird. For birds that are inclined to get too fat, though fed on the same lines as their yard mates, who keep in the condition required, an occasional dose of the Epsom salts, given as directed, will often remedy the trouble.

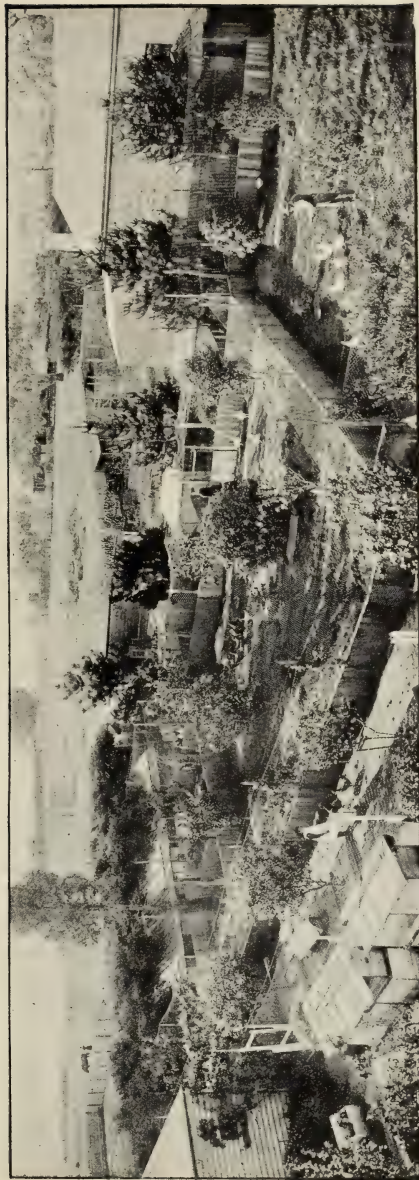
It is not a wise plan to keep fowls and ducks together in the one yard, as it will be necessary to feed them differently, ducks not being nearly so liable to contract disease by eating more or less filthy

food as fowls are ; but, if unavoidable, it is best to feed them apart if it can be managed. An excellent method where fowls and ducks are kept together is to have a large wooden trough, nearly square, with sides, 3 or 4 inches in height, fixed on four legs a couple of feet in height. (See Fig. 36.) The fowls can be fed in this manner, the ducks rarely attempting to fly up, while the latter may have their food placed underneath a shallow box, a foot in width and several feet in length, about 4 inches in height. (See Fig. 37.) This can be made with or without a bottom, one side being left open. The ducks are enabled to obtain their food easily, owing to the flexibility of their necks, while the fowls are prevented from scratching or pulling the food about. By feeding the fowls first, they will get out of the way, and after one or two meals have been given them in this manner no trouble is likely to arise, the ducks soon understanding where their food is obtainable.

As far as there being a possibility of making a Poultry Farm, by the production of birds and eggs for market, a profitable concern, we can safely offer the opinion that it can and has been done in more than one instance, and under disadvantages that would astonish many of our readers. We are well aware that many preposterous statements have been made by some writers on Poultry matters which were grossly misleading, but this does not upset the fact that good and lasting results have been achieved by men of practical experience ; and has distinctly shown that Poultry Farming, carried out in a systematic and intelligent manner, can be made as successful a venture as any other form of business. There are numbers of persons having no knowledge of Poultry whatever who invest their capital, imagining that it is an easy matter to acquire the knowledge necessary to make a success, but are grievously disappointed when failure stares them in the face. We venture to state that in the majority of instances where failure has resulted, that if the same persons had invested their capital in any other class of business of which they were as ignorant, the same end would be arrived at, so that before embarking in the Poultry Farming line it is well to have some practical experience on the subject.

Feeding occupies such a prominent part in the management of Poultry that serious loss is often occasioned for want of study and observation, and, as there are a thousand and one details which have to be systematically carried out in connection with a Poultry Farm on a large or small scale, it can be understood that those people are most unwise in risking their little all in a venture of this sort before gaining some sound practical knowledge of the business they are about to undertake.

On a Poultry Farm, when egg-production is the point aimed at, the laying hens do as well, or better, without the cocks running with them. No male birds, outside of those reserved for the breeding pens, should be allowed to remain on the farm *one day* after they are old or fit enough to be sent to market. There is no necessity to feed a lot of cocks or cockerels, as the food eaten by them would go towards the support of more productive birds, or a saving effected ; and, as the experienced farmer keeps no hens when they are past their profitably productive age, why should he keep a lot of useless cocks, for which a certain return could be obtained? *A positive loss in the management of many farms is occasioned by neglect of this one item.* Poultry Farming is a pleasurable pursuit, and can be made a profitable one if carried out on systematic lines. As such an amount of likely and attainable success rests in the hands of the Poultry Farmer in *breeding* hens for laying whose powers of egg-production are considerably greater than the ordinary hens, he will naturally reap the reward of his skill and labor by doing so ; if this is neglected, and the laying stock are bred in a careless and indifferent manner, this will as surely turn to loss. Hens bred in the latter manner generally cost more to feed, and, as they cannot give anything like as good a return in the number of eggs laid annually, this tends to failure. Economy must be studied in the management of all Poultry if success is wished for ; and, as housing, feeding, and general care of the flock play such an important part in turning a possible loss into a payable profit, these essentials must not be neglected.



From a Photograph.

Mr. J. B. Crawford's Poultry Yards,

Alphington, Victoria.

AN ANALYSIS OF VARIOUS POULTRY FOODS.

The different constituents in every pound weight of—	Bone Formers.	Flesh Formers.	Fat or Oil	Starch.	Water.	Waste.
	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.
Barley or Barley Meal	$\frac{5}{16}$	$1\frac{12}{16}$	$\frac{5}{16}$	$9\frac{10}{16}$	$1\frac{12}{16}$	$2\frac{4}{16}$
Buckwheat	$\frac{4}{16}$	$1\frac{15}{16}$	1	$9\frac{4}{16}$	$1\frac{13}{16}$	$1\frac{12}{16}$
Buckwheat Meal	$\frac{6}{16}$	$2\frac{8}{16}$	$\frac{9}{16}$	$10\frac{2}{16}$	$2\frac{10}{16}$	$\frac{5}{16}$
Bran	$\frac{15}{16}$	$2\frac{9}{16}$	$\frac{10}{16}$	$6\frac{14}{16}$	$2\frac{14}{16}$	$2\frac{13}{16}$
Beans or Peas	$\frac{5}{16}$	4	$\frac{5}{16}$	$7\frac{11}{16}$	$2\frac{10}{16}$	$1\frac{5}{16}$
Carrots	$\frac{2}{16}$	$\frac{1}{16}$	$\frac{1}{32}$	$\frac{13}{16}$	$14\frac{3}{16}$	$\frac{13}{16}$
Dari	$\frac{4}{16}$	$1\frac{8}{16}$	$\frac{12}{16}$	11	2	$\frac{8}{16}$
Grass	$\frac{6}{16}$	$\frac{6}{16}$	$\frac{2}{16}$	$2\frac{2}{16}$	$12\frac{4}{16}$	$\frac{13}{16}$
Hempseed	$\frac{5}{16}$	$1\frac{10}{16}$	$3\frac{6}{16}$	$7\frac{3}{16}$	$1\frac{10}{16}$	$2\frac{4}{16}$
Indian Corn or Meal	$\frac{2}{16}$	$1\frac{12}{16}$	$1\frac{4}{16}$	$10\frac{7}{16}$	$1\frac{10}{16}$	$\frac{13}{16}$
Lean Beef	$\frac{2}{16}$	3	$\frac{8}{16}$	0	$12\frac{6}{16}$	0
Milk	$\frac{2}{16}$	$\frac{12}{16}$	$\frac{8}{16}$	$\frac{13}{16}$	$13\frac{13}{16}$	0
Pollard	$\frac{13}{16}$	$2\frac{14}{16}$	$\frac{15}{16}$	$8\frac{8}{16}$	$2\frac{4}{16}$	$\frac{10}{16}$
Oatmeal	$\frac{2}{16}$	$2\frac{14}{16}$	$\frac{15}{16}$	$10\frac{1}{16}$	$1\frac{10}{16}$	$\frac{5}{16}$
Oats	$\frac{5}{16}$	$2\frac{7}{16}$	$\frac{15}{16}$	$7\frac{8}{16}$	$1\frac{9}{16}$	$3\frac{4}{16}$
Onions	$\frac{1}{16}$	$\frac{4}{16}$	$\frac{1}{32}$	$\frac{12}{16}$	$14\frac{9}{16}$	$\frac{10}{16}$
Parsnips	$\frac{2}{16}$	$\frac{4}{16}$	$\frac{4}{16}$	$1\frac{6}{16}$	13	1
Potatoes	$\frac{5}{16}$	$1\frac{1}{16}$	a fraction	$6\frac{9}{16}$	$8\frac{1}{16}$	0
Rice	a fraction	$1\frac{2}{16}$	„	$13\frac{12}{16}$	$2\frac{2}{16}$	0
Turnips	$\frac{2}{16}$	$\frac{1}{16}$	„	$\frac{10}{16}$	$14\frac{15}{16}$	$\frac{5}{16}$
Wheat	$\frac{5}{16}$	$1\frac{15}{16}$	$\frac{8}{16}$	$11\frac{3}{16}$	$1\frac{15}{16}$	$\frac{2}{16}$

This analysis applies only to the very best samples, not to inferior foods.

If fowls are kept tame and properly cared for there will be far more pleasure derived from them, while they will assuredly prove much more profitable; and it is the easiest thing in the world to keep Poultry tame by the exercise of gentleness and kindness at all times. No matter how wild the birds are, if you show them that they have nothing to fear, and that you are their friend, they will become so confident as to eat out of your hand, and suffer themselves to be picked up and examined at any time. This is most desirable, as the birds certainly thrive better than those that are frightened or in constant dread of your presence; and nothing is more annoying than having to chase a bird all round the yard if it is required for any purpose, and it is worth while to try and gain the bird's confidence, to obviate this unpleasant task.

In the feeding of green-cut bone to Poultry, Fanciers and Farmers have an excellent food, which practical experience, by severe tests, has proved to be invaluable. We are indebted to the *Agricultural Student*, published in America, for the following, which shows that the value of raw bone fed to Poultry has been conclusively determined by an exhaustive experiment. The following is the report: "The experiment was started with four divisions, and two pens in each division—one of old hens and one of pullets, ten to each pen—the first division receiving green-cut bone, crushed oyster-shell, and gravel, second division receiving green-cut bone and gravel, third division receiving crushed oyster-shell and gravel, the fourth division receiving gravel only, each division receiving the same amount of ordinary foods in addition.

TABLE SHOWING WEEKLY RESULTS OF EGGS FROM NOVEMBER 1 TO JANUARY 24, INCLUSIVE.

1st Division.			2nd Division.			3rd Division.			4th Division.		
10	Pullets.	10 Hens.	10	Pullets.	10 Hens.	10	Pullets.	10 Hens.	10	Pullets.	10 Hens.
7	...	3	12	...	0	6	...	0	10	...	0
5	...	1	9	...	2	3	...	0	4	...	0
5	...	0	6	...	2	2	...	0	0	...	1
4	...	4	5	...	3	4	...	0	0	...	1
17	...	13	8	...	4	4	...	0	0	...	5
20	...	13	12	...	12	7	...	0	2	...	4
11	...	14	9	...	9	2	...	0	2	...	1
5	...	7	1	...	10	7	...	0	1	...	0
6	...	0	3	...	13	4	...	0	4	...	0
12	...	3	10	...	11	9	...	2	4	...	0
18	...	1	15	...	5	12	...	1	9	...	1
30	...	5	25	...	9	19	...	1	16	...	0
140	...	64	115	...	80	79	...	4	52	...	13
Total, 204.			Total, 195.			Total, 83.			Total, 65.		

The first division received 14 lbs. of raw-cut bone, 2 lbs. of oyster-shells, and all the gravel they wanted.

The second division received 14 lbs. of raw-cut bone, and all the gravel they wanted.

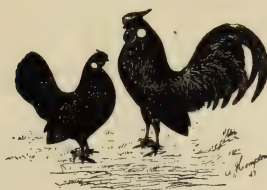
The third division received 6 lbs. oyster-shells, and all the gravel they wanted.

The fourth division received gravel only.

This shows that the hens and pullets fed with green-cut bone more than doubled the number of eggs produced, but this is not all. The condition of these birds, notwithstanding their increased egg-production, are in much better plumage, and are standing the winter much better than the others." One cannot fail to draw the conclusion that green-cut bone fed to Poultry for the purpose of egg-production is highly beneficial, and if the farmer is enabled to obtain two extra eggs per week from each hen thus fed he will make a large profit. We may add that if the product of each hen can be increased *but one egg per week only in winter*, when eggs are high in price and scarce, *that one egg alone* from each hen per week will pay for all the food the hen can possibly consume, and it therefore pays to feed the substances which will induce and assist the hens to lay, as, if hens are consuming food and producing none or few eggs, this will cause a serious loss, and this occurs without exception every winter on a large proportion of the farms devoted to egg-production. The hens are supplied with plenty of food, but not of the proper kind. A pound of green-cut bone will be sufficient for 16 to 20 hens per day, which means nearly one ounce per head. Such a diet, in addition to the regular foods, provides fat, starch, nitrogen, phosphates, lime, and all other substances required to enable and assist the hens' laying powers, and leads to the indisputable fact that a bone-cutter is as necessary to the management of Poultry as any other two items. It enables the farmer to use an excellent and cheap food, and shows a profit where he might otherwise be compelled to suffer a serious loss. It is claimed that a bone-cutter such as "Mann's" pays for itself in eggs the first year, and after that costs nothing. Bones are now recognised as one of the highest staple foods for Poultry, and no system of feeding Poultry, whether for market, egg, or show purposes, should have them omitted, as green-cut bone comprises food, grit, and lime all combined in one, and fowls will leave all other food to eat cut bone. The Poultry Fancier or Farmer who does not now feed his birds with a definite idea or purpose is sadly out of touch with the times, as the days of careless and indifferent modes of feeding are quickly becoming obsolete. The fact

that the profits on Poultry-rearing, whether for market or egg-production, exceed that of any other agricultural pursuit for the same amount of capital invested, is now striking home to many Farmers, and causes them to wonder how it is that they have so long overlooked the decided profit attached to systematic Poultry-raising.

The calling or business has now attained that degree of importance that it is not now sneered at as "only a woman's occupation," and the feeding and breeding to attain a given object—that of profit—now becomes almost a science, gained only by close study and observation. Now they are fed in a rational and intelligent manner, with correspondingly good results, being fed with rations which will stimulate egg-production, without causing them to accumulate undesirable fat; but, where the object is to fatten Poultry for table requirements, quite a different system of feeding is followed. Experience has also established the fact that different breeds require dissimilar diets to produce the same effects, as, for instance, the Asiatic breeds do not forage to any great extent, and would become too lazy and fat if fed on the same food as the Mediterranean varieties. From the experiment quoted previously in this chapter on feeding, a good guide is given in feeding Poultry for eggs. The highest measure of success is attained by feeding as varied a diet as practicable, remembering that if eggs are wanted nothing gives better results than green cut bone in fair proportion to other foods. As many and varied ailments can be distinctly traced to inferior foods, which cause disastrous results, the food of each and every description should be sound, clean, and wholesome. Careless or indifferent methods of feeding Poultry will invariably give unsatisfactory results, and if the Farmer or Fancier is not successful in obtaining good returns from his stock, he should lay the blame to his own neglect, and not put it down to the score of "bad luck."



CHAPTER VI.

FEEDING, REARING, AND MANAGEMENT OF CHICKENS.

THE beginner will be fortunate if the hen with the chickens is of a quiet and docile nature. Should the hen be of a quiet disposition, the chickens are best left with her as they hatch, as no artificial heat is equal to the natural warmth of the hen. It is only when she is restless that they should be taken away, and placed in a basket or box by the fire, being wrapped up loosely in flannel. In some instances, where the time of hatching is irregular, which is frequently occasioned by some of the eggs being staler than the others when put under the hen, the first hatched chickens will run out and about, causing the mother great anxiety, with the consequence that she will neglect those eggs not quite hatched. This can be obviated by taking the chickens away from her for a few hours, and placing them beside the fire in a basket as directed.

It is not necessary—and, in fact, unwise—to feed the chickens until they are quite 24 hours old. Nature attends to this in a perfect manner by the process of the yolk entering the abdomen at the navel, which provides them with the best means of subsistence until they are strong and lively enough to run about for food. It is, at the same time, a judicious plan at this stage to provide the hen with a good meal of soft food or grain, thus preventing her when the chickens are first fed from trampling them under foot in the anxiety to satisfy her hunger. The first food for the chickens of most varieties,

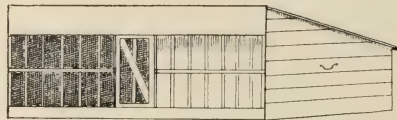


FIG. 38.—Hen and Chicken Coops.

which can be continued at intervals of an hour for the first three days, is hard-boiled egg, chopped up very fine, and mixed with bread crumbs, taking care not to give them a particle more than they will eat up clean at each meal. Any food left over should be taken away, otherwise it becomes sour, or foul, through being tramped underfoot, and is then most injurious. Many good and successful feeders of Poultry do not allow the chickens anything to drink for some days; others give a little milk, or milk and water. We have found that chickens thrive on either system, so that it is extremely difficult to state which is best. We now allow our chickens to obtain water after they are 24 hours old, if they feel so inclined, and no evil results have followed. Invariably the best system to manage the hen and chickens is to confine her in a roomy coop (the coop illustrated in Fig. 38 is one we have used for years), and to place a 6-inch board across the front, to prevent the chickens from getting out for a few days. The hen will nurse them much better if she is confined in a coop, without opportunity to fly up, as would be the case if she was placed in a house. If the coop is made without a bottom, the hen will take opportunity of dusting her feathers; but if a wooden floor is used, sand or earth must be supplied for the same purpose. At this stage, if not done before being placed in the coop, it is as well to sprinkle a few drops of carbolic acid, diluted with 20 times its bulk of water, on the hen's breast and

underparts. This will greatly assist in keeping down insect pests, which worry the life out of the chickens, and which are the cause of 90 per cent. of the deaths and failures in rearing them. The coop should be made high and wide enough to accommodate the hen without cramping her up, as many chickens are trapped to death by the hen's movements when in a too confined space. The first three or four days cracked wheat, bread crumbs, millet seed, hempseed, and pollard, the latter mixed with boiling water into a crumbling state, will bring them along nicely. Change of diet is one of the principal means to arrive at success in rearing chickens. This is a good time to begin giving the chickens some meat daily, chopped up into very small pieces. This they will relish greatly. Meat will be found of great value in feeding chickens, and if a grass run is handy to the coop very little further attention is required. Should there be no grass run available, almost any description of green food—lettuce, cabbage, turnip tops, thistles, green oats or barley, or fresh-cut grass, cut up very fine, and given daily—will be most necessary; fine grit and broken charcoal should also be placed where it can be obtained by the chickens at will. Our experience on the question of coddling chickens (one mistake the enthusiastic beginner is very likely to make) is, that it never pays to bother with delicate or weakly chickens. Their existence is best terminated at once, which gives the others a better chance. A weakly, miserable chicken often irritates the hen, and makes her quite restless, causing the other chickens to be neglected, a sickly, weedy one, often standing outside of the coop, making a plaintive and incessant noise, causing the hen to make fruitless attempts to get out to it. The others are by this means prevented from obtaining the proper attention by being nursed just at a time when it is desirable.

Cold weather, providing it is dry, suits chickens infinitely better than very hot spells, the latter seeming to bake the life out of them, though cold weather, supplemented by a damp or wet coop, frequently causes great losses by cramps and colds. Where the ground outside the coop is damp or wet, a wooden floor to the coop is the best method. This will prevent ill results from following, and if covered with sand or ashes will make them comfortable. When the chickens are ten days to a fortnight old it will not be necessary to feed oftener than four or five times per day. This should be continued until they are two or three months old, when, after that time, they may be treated on the same lines as adult stock.

To encourage early growth, where this is desired, we know of nothing better than green cut bone, or bone dust, mixed with the morning meal. By being thus given, it has a decided tendency to check the inclination to leg weakness, which some breeds are extremely liable to, besides acting as an almost certain preventive of diarrhœa.

Very little success in rearing chickens will be met with if they are allowed to run about indiscriminately with adult stock, and it is wise to divide a portion of the run or yard for their separate accommodation. The floor of the coop should be raked over and renewed occasionally. The little trouble taken fussing about this detail will be amply repaid by the health and growth of the chickens. Another important point not to be overlooked is to prevent the chickens from roosting on perches until they are at least four months old, as this invariably causes them to contract crooked breasts—a great disfigurement to any bird, and a certain disqualification for the Show pen. This can be prevented by giving them plenty of soft earth or sand to sleep on until the breast-bone is sufficiently set, which will be at or about four to five months old. Insects, such as lice and ticks, play sad havoc with many a fine brood of chickens; but if looked for, and when found, treated at once, will generally save them; for ordinary lice, or the red mite, the carbolic mixture mentioned in the early part of this chapter will destroy them, and prevent them making headway; but the worst of all chicken pests, and one that takes off whole broods at a time, is the tick. Many breeders and fanciers are unaware that there is such a thing as a chicken tick, and would not know them if they saw them. If a chicken is moping about, and making a plaintive noise, their presence may be suspected. The tick always infests the head, neck, and throat, burying themselves deeply in the skin; when pulled out, the chicken cries out in pain.

They can easily be discovered (being of a dark grey colour) by turning back the fluff on the head, neck, and throat, when, if they are present, some movement will be noticeable. We have taken from a dozen to 20 off the head of a single chicken, but found that operation very laborious where a number required attention. After experimenting with quite a number of different preparations, and killing many a promising chicken before we discovered an unfailing remedy, we tried eucalyptus oil to anoint the heads of the chickens, but found that many were smothered while under the hen by using this. Kerosene oil also killed a good many. We now use carbolic oil, using a camel's hair brush dipped in the oil, anointing the head, neck, and throat. A number of chickens can be attended to, and the operation can be done speedily, night-time being the best. This will be found an unfailing and effectual method of ridding the chickens of the ticks, and is instantaneous in its action, though giving the chickens a more or less dirty and bedraggled appearance for a few days; but it will be found that the morning after the operation they will be as lively as crickets. This remedy serves a twofold object, as the little ones running under the hen with the oil on the heads and necks gives quick intimation to any ticks that may be on the hen's breast and underparts that their presence is not desirable. We never had to repeat the operation again with the same brood. It acts instantly and effectually.

After some time, which varies with the different hens, they commence to beat or peck the chickens. When this is noticed, if they are not fully fledged, an artificial mother must be provided, which can be made in an hour from a small box and with a few strips of flannel tacked lengthwise from the top, and to hang down just clear of the ground or bottom. (See Fig. 39.) The top and sides should have holes

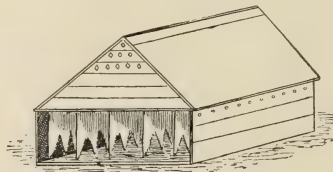


FIG. 39.—Artificial Foster Mother for Chickens.

bored for ventilation. With this simple and inexpensive arrangement the chickens will manage to get along well until they are well able to take care of themselves, and run about with the rest of the flock.

One thing to remember in the feeding of chickens: Under no circumstances should soft food be left about, as it often becomes sour, and is then very unwholesome and injurious. It will be found that once a chicken's growth is retarded by unwholesome food, or from any other cause, it never comes to any good. Pure, clean water must always be kept handy, and in a cool spot, and if a little sulphur and a little salt are occasionally added to the soft food they will get along famously.

It is useless to attempt to cure chickens that contract Tubercular disease, which may be detected by a watery discharge from the nostrils; or, on opening the beak the throat and tongue will be found more or less covered with a slimy, cheesy substance. When this is noticed they should AT ONCE be destroyed, and the bodies BURNED, not buried, as the disease is most contagious, and will often carry off a whole brood.

We must now proceed to explain the system of rearing chickens hatched in incubators. The methods laid down for feeding will be similar in every respect. It is the nursing which requires careful attention, as the chickens often are made most hot and uncomfortable by the variations of the atmosphere. The scientific manner and large percentage of chickens hatched at the present day by incubators has done much to explode the fallacy that it is easy to get chickens hatched, but next to impossible to rear them. They are, in fact, reared artificially in the easiest manner by receiving the

necessary care and attention, given by one who will devote a little time to the object. Chickens are now reared without the aid of the hen on any farm of magnitude, and there is an immense saving in time and expense effected.

An artificial mother, with or without heat supplied, can be made at a trifling cost, and will be found to act admirably. The first can be made from an ordinary box, or boards, 12 to 15 inches in depth front to back, and from 15 to 20 inches in length, 6 to 9 inches in height at the front, sloping back to a height of 4 or 5 inches behind. (See Fig. 40.) This should have strips of flannel tacked lengthwise from the roof, and to just clear the ground, the lower edges of the flannel being cut as in Fig. 41. These strips should be about 1 inch apart, and will make a comfortable nestling ground for the chickens if cleaned and aired daily, and a little insect powder sprinkled among the flannel strips, to keep down insect pests. Ventilation should be obtained by boring holes a quarter of an inch in diameter around the sides, back, and top, to allow the foul air to escape. An artificial mother of these



FIG. 40.—Artificial Foster Mother for Chickens, with Heat Attachments.

dimensions will accommodate 10 to a dozen chickens until they are 4 to 6 weeks old; after that time they will not require any covering whatever if of the quicker-fledging varieties. A wired-in run, top and sides 5 or 6 feet in length, can and should be made to allow the chicks to run about, and obtain the benefits of the sun as they feel disposed, and if the foster mother is protected by a covering from the weather by a lean-to roof, very little trouble, beyond keeping the mother clean and providing food and water, will be necessary for the chickens' welfare.

An excellent idea, and one we have seen in operation on a Market Poultry Farm, where 2,000 to 2,500 head of chickens are reared annually, is to have a number of these artificial mothers under one roof, the runs attached being divided from one another, these are made to extend outside the wall of the building about 3 or 4 feet, with holes cut in the wall for ingress and egress, and can be closed at will by having a trap-door attached, to shut down during hot, cold, or wet weather, and as half the run is inside the



FIG. 41.—Showing Flannel cut in strips for Artificial Foster Mothers, Figs. 39 and 40.

building, the chicks are not cramped for room. About an inch depth of sand is spread over the floor of the mother and run, the whole being built at an elevation of 2 feet from the ground. The wired tops, both inside and outside of the building, are on hinges, which allow of the run being cleaned out and raked over occasionally, the depth of the run being from 12 to 15 inches. As chickens do better in batches of 20 or thereabouts, the runs are made of sufficient size to accommodate that number, which will answer until they are three weeks old. At this stage they are drafted into larger runs, built on the same plan, but which lead out into open yards. In this case, if the chickens are of a variety which fledge quickly, the artificial mother may be dispensed with, the natural warmth of their bodies while nestling together in a heap being quite sufficient, and it is surprising how they will progress under these conditions. The feeding troughs in use are of a novel design, being detachable, as shown in Fig. 42. Those for the open yards are as shown in Fig. 43. Many of the chickens being hatched during the

winter months, the artificial mothers are warmed by the aid of lamps, which supply hot air, carried by the medium of a pipe through the brooders on the top. (See Fig. 44.) When the chickens are two months old they are again drafted into still more commodious runs and houses, and still allowed to huddle together, as in the second instance given. This system of moving them about is carried still further until they have arrived at the age of 4 months, when they are drafted into large open yards, and allowed to roost on perches provided in the houses attached. Trees are grown for shade, and a shelter-shed provided for inclement weather, the birds being kept out of the roosting houses in the daytime. The floor of the house is made of concrete, and covered with a sprinkling of sand, the roosts placed parallel with one another, about 18 inches apart, and not more than



FIG. 42.—Feeding Trough for Chickens (Stehr).

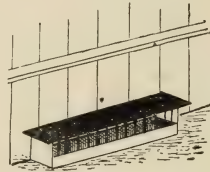


FIG. 43.—Feeding Box for Chickens (Wire Front).

15 inches from the ground, and detachable. This allows cleaning operations to be done expeditiously each morning, and is of great benefit to the inmates.

The use of a reliable Incubator becomes quite apparent where non-sitting breeds are kept, such as Spanish, Hamburgs, Leghorns, and Minorcas, etc.; and under these conditions an artificial mother for the newly-hatched chicks must be provided, and it takes them but a short time to discover where they can obtain the requisite warmth. This has many advantages over a hen, the chickens being able to get warmed just as desired, not as often the case where the hen will not brood them, but is continually moving about; and, as the temperature required is much lower than that provided by the hen, very little difficulty is experienced in obtaining the requisite amount of heat, which should not exceed

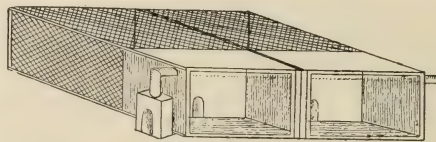


FIG. 44.—Artificial Brooders, with Heat Attachments (Glass Fronts).

85 degrees Fahrenheit. It will be found that excellent results will be gained by using artificial mothers, the risk of chickens being maimed or injured being reduced to a minimum.

One of the best of these Foster-mothers is that manufactured by Mr. R. Johnston, Chappelow Estate, Hurstville, N.S.W. It is like most Incubators in having a body of water heated by a lamp which conducts the heat to the chicken-chamber, the chickens being located upon a loose bottom, which can easily be drawn out at the back, and thoroughly cleaned and disinfected without trouble. The sleeping-chamber has a glass door, to provide light for the inmates and expedite cleaning operations. Ventilation is secured at the top and underneath the tank rests, which have a strip of wood bevelled off to allow the air to pass out freely, though avoiding draught. The heat is registered by a thermometer placed in a perforated zinc receptacle, protected from interference by the chickens. The heat on top of them

should not exceed 84 or 85 degrees Fahr. The chickens have ingress and egress through a small door placed in front of the nestling-chamber, and leading out into a wired-in run provided; they quickly learn where the requisite warmth may be obtained. The lamp is situated at one end, and enclosed in a wind and rain-proof covering, which allows the mother to be used in the open air. The ventilation to the lamp is perfectly secured, so that no smoke or flicker can possibly take place. The outlet for the surplus heat of the lamp is provided by a cap over the top, which conducts the hot air up through the roof, over which is also provided a cap, to prevent the wind blowing down and extinguishing the lamp. This Foster-mother can be easily and quickly moved about, and the chickens are kept under quite as healthy conditions as if reared by hens.

A well-known and highly successful Fancier, with many years' experience, supplies the following notes on chicken-rearing and feeding. He states: "Young chickens require systematic and careful feeding; until they are at least five weeks old they should be fed not less than five times per day. The first meal should be given at daybreak. Young chickens require no food for twenty-four hours after they are hatched. Their first food can be dry, stale bread crumbs; if the bread is very stale it may be moistened with milk, but all surplus moisture must be squeezed out. An excellent feed is made of equal quantities of cornmeal and ground oats, to which one-third of good pollard has been added. Mix them thoroughly together while dry, then add a little lard, a little salt and soda, a fresh egg, and milk enough to make a dough the right consistency for making bread. Bake this in a slow oven until thoroughly done, letting it become well browned on the top before taking it out. The centre of such a loaf will be just right to crumble for feeding the young chicks; the top crust will be too hard to crumble, but can be moistened with milk, as recommended with stale bread. Variety is needed in feeding the young chickens, and food of a nature that will give proper nourishment should be selected. The youngsters are compelled to grow flesh, bone, muscle, and feathers all at the same time. This is a great strain on the system, and when you see a lot of scrawny young chickens in a brood you may safely conclude that their diet has been an improper one, and has lacked some of the essentials. Table scraps may be utilised for the chicks, and they contain much variety that is needed; when the chickens are fed a variety diet there need be no fear of getting them too fat. It is a matter of astonishment what an amount of food growing chickens will consume. They need a little at a time, but require that little often if they are expected to go ahead and grow. It pays to feed them with good food at first, as stunted chickens will eat more food than the others in the same brood of the same age, and they will never do as well if neglected in their earlier stages. The first food that the young chicks are given should be placed on a board, over which clean sand has been scattered; many chickens are lost from not having grit to properly grind their food with. Boiled lean meat is a good ration once each day, but do not feed them as much of the meat as of other foods at one time. Boiled wheat may be given as soon as they will eat it; whole wheat, cracked corn, rolled oats, and all grains can be given them to partake of. If the hen is confined in a coop, feed the chickens outside. Do not leave food about after they have had all they require. Green food should be given the chickens, when the hen is cooped, at least once a day; in the spring, or where the hen is allowed liberty each day to take the chickens out on the grass, no green food, beyond that which they can procure, will be needed. Sloppy food, such as pollard or cornmeal mixed up into a pasty mass is apt to produce scours; this should be mixed with boiling water, not cold, as if they are fed with the latter method of mixing they will eat so much that the meal will commence to swell and sour in the crop, and scours will likely ensue. Never give any damaged food or grain to chicks, as in the end it will prove an expensive experiment. Most chicken ailments can be traced to bad or impure food. Slipshod or indifferent methods of feeding will invariably cause unsatisfactory results. Rest assured, neglect in feeding regularly and poor food will inevitably bring along in its train "poor luck," and if you are not successful in rearing chickens you will have yourself to blame alone."

It is a melancholy fact that a great proportion of the chickens annually hatched never live to a marketable age, and this in a great measure may be distinctly traced to improper feeding, which

eventually causes bowel disease and dysentery, making frightful inroads in the stock, and consequently heavy pecuniary losses—a truly costly object lesson to the beginner or to the Poultry Farmer who neglects to feed his stock systematically. Another point often overlooked is the neglect on the part of the breeder to destroy the runts or weakly chickens at an early stage, as invariably they will drop off later, or, if they manage to survive, cannot come to any ultimate good. There is frequently one weakling in every brood, and this should at once be destroyed. There are many causes for the constant recurrence of a miserable chicken or two in a large brood, such as the eggs from which they were hatched may have got chilled during incubation, by being pushed out of the side or front of the nest, or the hen having too many to cover properly. Again, an egg may have been broken in the nest, and the contents closing up some of the pores of the shell, retarding the growth of the embryo chicken, naturally weakening them and causing them often to hatch later; the chickens, having insufficient stamina to fight the battle of life, are generally plaintive, miserable objects for a day or two, then drop off. Another cause, and invariably the prime one where weakly chickens are produced in numbers, is a lack of vigor and stamina in either parent bird. The cock may be semi-impotent, or, perhaps, being highly inbred, his consequent vigor is impaired, or he may have too many hens. The hen may be too fat and lazy, and, as a natural consequence, would not be in a fit condition for the breeding pen, or she may lay eggs rich in animal fats, but poor in other essential elements. Chickens hatched from eggs laid by such hens will be miserable weaklings; or, again, a hen may be a high-class layer, and the severe drain upon her system by the constant and steady egg-production, the latter eggs of the batch being deficient in some degree, the chickens hatched would also be weaklings, so that if constitutional vigor is desired in the chickens the condition and stamina of the parent birds must be the first consideration. Much of the weakness and lack of vigor in the chickens produced are due to preventable causes, and stock birds should be always fed sound, sweet, healthy food if vigorous and healthy chickens are desired from them. Poor hatchings as a general rule means stunted chickens, for the simple and indisputable reason that the same surrounding influences which cause a portion of the eggs to be infertile also lowers the vigor, vitality, and stamina of the chickens hatched from the fertile eggs; and it may be safely accepted as a truism that a good uniform hatching indicates healthy, vigorous chickens, while a poor or prolonged one exactly opposite.

The principal causes of early mortality amongst very young chickens are those we have described, supplemented with dysentery, diarrhœa, lice, and want of grit. We have on a previous occasion written strongly on the lice question; and, though thousands of young chickens are annually sacrificed to their attacks, this can easily be prevented by the application of simple remedies. One way in which the lice kill the chickens is by a constant and steady drain upon their systems, causing the chickens to be susceptible to the slightest cold, wind, or rain, with the natural result that their bodies are so weakened they cannot rally against the attacks of the lice, and the results are either a speedy or lingering death. It is easy to clear out the lice, keeping the coops perfectly clean, dusting the hen every three days with insect powder while incubating, and also dusting her once a week while with the chickens, examining the latter occasionally. One thing is definitely certain—it is not wise to try and combine chicken and lice raising. If we want good healthy, vigorous chickens we must take drastic measures to destroy all vermin that attack them; but, if we want lice, if they are let alone there need be no fear of being bothered with chickens.

Bowel diseases also carry off thousands of promising chickens each year; and the main causes of these are improper food, being chilled by extreme cold or wet weather, and neglect of giving a good supply of grit. It is often difficult to ascertain to which of the three causes mentioned they are attributable, but frequently the three will be found combined; in the majority of cases, no doubt, it can be distinctly traced to *want of grit*. Without the latter the gizzard is unable to perform its proper function, and places the chickens in exactly the same position as a hungry man without teeth, by being unable to masticate food. A chicken, being hungry, greedily swallows the food offered, the

food fills the crop, where it becomes moistened and softened, then passing on to the gizzard, and from lack of grit in that organ lies there, irritating the gizzard and delicate internal organs, and the tax placed upon the gizzard by the violent efforts to manipulate the food excretes the fluids which assist digestion, and this excretion of the digestive fluids is frequently mistaken for dysentery. It stands to reason that a chicken so situated, even if it survives for a time, cannot come to any ultimate good, and it merely resolves into the question of how long its strength can sustain life, eventually becoming a victim to the owner's stupid neglect. We have a firm conviction that, next to lice, *want of grit* is the greatest cause of excessive chicken mortality.

Again, improper food, such as soft food that is sour or filthy, or of a doughy consistency, is another of the greatest evils to be guarded against in chicken-rearing. Numbers of careless persons who feed chickens throw down in a perfunctory manner a lot of sticky food which the chickens tramp on and foul, and that which is left over becomes sour by the action of the sun, being eaten later. This sour and filthy food is the very worst thing a chicken can eat, and acts as an irritant poison to their systems. It does not supply a particle of nourishment, but at the same time taxes the strength already gained to rid the system of it. This will be plainly seen as but poor economy if the chickens are wanted or expected to show some return for the outlay. One of the commonest mistakes made by beginners in rearing and feeding chickens is to mix up at one time (to save labour) *too much food for the one meal*, saving that which is left over for a later feed. By this latter time the food is well advanced on its way to sourness, if not quite sour, and is then a source of the greatest danger. This is so very simple a mistake to avoid that there is no tangible excuse for committing the error. *Feed just as much, and no more, than will be eaten up greedily, and let it be absolutely fresh sweet, and clean.* The same remarks equally apply to the feeding of adult stock; and, as an excellent guide to those who have not gained practical experience, it is well to bear in mind to feed only what will be eaten up immediately and wholly consumed. If any food whatever is left five minutes *after feeding*, the birds have been *overfed*. With the very young chickens, "feed a little at a time and often" is the certain end towards success.

A great proportion of the cases of dysentery in young chickens is caused by a chill, either from exposure to cold winds or severely wet weather, and also often from getting wet in the dewy grass in the early morning, and to prevent this a *perfectly dry* lodging and a little shelter must be provided. With these simple precautions taken the chickens will be kept warm and comfortable, two great aids to successful chicken-raising.

The weeding-out and separation of the sexes are worthy of careful attention when they are from three to four months old. This is often neglected, owing chiefly to the difficulty in providing separate accommodation, the general result being that the ground is overstocked, and the birds naturally suffer accordingly. Chickens while growing require plenty of room, both by night and day, and if the limit of house accommodation be reached, and the runs not possible of further extension, it is wise to at once decrease the number of occupants. This possesses a double advantage—that of not increasing the food bill, and by allowing those retained to have full and plenty, as to attempt to reduce the expenditure by limiting the food supply will surely result in hindering the growth of the young stock. The beginner, if he is at all observant, will have less and less difficulty each succeeding season in deciding which of the chickens to discard; and, if he confines his attention and energy *strictly to one breed*, will meet with success much earlier than if his attention is divided among several. There are some structural defects, such as *roach back, wry tail, twisted beak, crooked toes, etc., which should condemn the bird at once*, but in breeds in which feather-marking and shape are all-important points more caution is necessary. Chickens which appear gaunt, bony, and lean-looking, with few feathers, should be carefully dealt with, as in the majority of breeds these unsightly-looking ones mostly turn out the very best specimens as adults, and chickens of this description are well worth giving a little time to develop. At the time of weeding-out the chickens should be separated according to sex. When the cockerels begin to develop their combs and wattles, and make attempts at crowing, and are beginning to develop the

hackle and tail feathers, they should immediately be drafted off and placed together in colonies, in number according to the space at command, and if unrestricted liberty can be given they will do so much better than if at all confined. The pullets may be similarly dealt with, but it is just as well to change their quarters occasionally, so as to retard maturity. The masculine characteristics of a cockerel will be quickly developed by turning him down with a few old hens, more especially if he is fed on a partly flesh diet and a tonic used in the drinking water, but this would be at the sacrifice of ultimate size and stamina; a cockerel under these conditions never makes a big one, and vigorous progeny could scarcely be expected. To produce those well-developed, sound-constitutioned cockerels—*likely Show winners and the best of breeding cocks*—they should be kept in the *celibate* state as long as possible, all their growth being nursed, so that when the time arrives for their final development they will make strong, healthy, vigorous sires. Rearing the sexes together encourages precocity to such an extent that both cockerels and pullets are considerably retarded in growth and full development—two vital points which, if neglected, are likely to prove disastrous to the Fancier in these days of keen show competition.

To D. F. Laurie, Esq., of Adelaide, S.A., we are indebted for the following on the feeding of chickens hatched in Incubators and on Foster-mothers, which will, no doubt, be of great assistance to beginners in Poultry-raising. Mr. Laurie states: "If the first chicks of the season, place them on a flat board, piece of brown paper, or clean spot of ground, and drop rough oatmeal dry in front of them, tapping the ground and clucking after the manner of a hen, so as to attract their attention. An inquisitive chick will eye the proceedings, advance cautiously or with a spasmodic rush, and tackle a mighty morsel, with which it will wrestle until swallowed; as a rule, this completes the lesson, and the rest soon follow suit. When they have mastered the art of consuming dry oatmeal they may be fed on the same damped with water or milk, and also mixed with hard-boiled egg; this will do well for a week or ten days. Fine-chopped lettuce mixed with this food is much appreciated, and very advantageous. It is very convenient to have a series of small tin-lined bins for the various sorts of foods suitable for chicks, which are at first oatmeal, barley meal, and wheat meal, and later on cracked wheat, to be followed as they grow by occasional feeds of barley, oats, or split peas. Bread and milk is a very good occasional food, but I am not sure that I agree with a too free use of milk. Canary seed is much liked by the young ones, and may be their first grain food, but only to a limited extent, as it has a very hard shell. After a fortnight, boiled wheat may be given twice a day with good effect, also a little boiled bullock's liver, cut up fine. I find it an excellent plan, if time permits, to dig up a piece of ground each day for the little ones to scratch in, and, even if worms are scarce, it is surprising the amount of edible matter they seem to find, and the work they do makes them very hardy, and they grow well. A well-contested tug-of-war between two sturdy chicks over a tough worm is not devoid of the comic element—in fact, it is good fun on a nice spring Sunday morning. Cleanliness with chickens is the most important point of all. Place all the food in troughs, or on clean boards or sheets of iron, which must be kept clean. If food is thrown on the ground, especially if the latter is at all foul, it stands to reason that there must be great risk that the bird will consume offensive matter to its detriment. Fresh water, kept in the shade, should be provided, and changed at least twice a day, as well as a plentiful supply of finely-chopped green food. For the latter, lettuce, cabbage, etc., are good, and for summer thousand-headed kail, lettuce, Chinese cabbage, and silver beet are to be recommended; last, though by no means least, lucerne, or, if obtainable, clover. A few rods of ground, well manured, will produce enough green food for a large number of fowls. Plant in rows, use the hoe frequently, and water occasionally with liquid manure, giving plenty of water in summer. It is a good plan to make large frames with wire-netting tops, and plant mustard or rape; the chicks can eat it without damaging the roots. As the chicks pass three months, give bone-meal made of dry bones (not with the oil in them) each day with the food. Powdered charcoal is very good for the digestion, and enables the bird to completely assimilate its food. Chicks are better if not allowed to roost; keep them on straw, in cat and rat-proof houses. As regards artificially-heated Foster-mothers, I do not believe in them, as there

is a great tendency to overheat the chicks, so that when they emerge they become chilled, and bronchitis, congestion, and inflammation of the lungs supervene. Keep them well graded according to sizes, in boxes—about 20 in each, on flannel, with a piece loosely hung over them. They will do well, and never sweat. When a fortnight or three weeks old let them stand on dry grass or straw, and if the weather is cold throw a piece of the blanket over them; if mild, place a wire screen over them, in case they jump out and get chilled. At a month to six weeks old put them out in the chicken coops, allowing ample straw, or dry grass, or seaweed. I find old blankets and tweed suits cut up very handy, although, perhaps, not highly ornamental. If effect is aimed at have all the boxes enamelled pale blue, and use thick, porous, scarlet flannel, of a quality that will stand washing. There is no doubt, if funds admit, it is more convenient and satisfactory to have everything, including houses, etc., as natty as possible. Chicks should always be kept in mobs of about 50, not more, and all of one size. Little and big together must end in disaster, and the down-trodden chick does not thrive. There is an ingenious way of feeding different-sized chickens, however, by having feeding-enclosures made of different-sized meshes of wire netting, the centre enclosure admitting only the small ones, the next size the larger chicks, and so on, while the oldest and largest are fed outside. These are best made circular, stiffened with wire, and when the season is over they can be rolled up in a small space. As soon as the cockerels get their tails they should be put in runs by themselves; they grow much better, and do not fight if separated from the pullets."

For the following notes on the prevention of vermin in the management of Poultry we are indebted to Mr. James Hadlington, Manager of the Grantham Poultry Farm, Plumpton, Rooty Hill, N.S.W. Mr. Hadlington writes: "Undoubtedly one of the greatest drawbacks to Poultry raising in a warm climate like ours are the pests commonly termed hen lice, and which are responsible for a large percentage of the failures in Poultry keeping. It is quite obvious that fowls infested with these pests cannot be profitable or a pleasure to their owners; and at the same time they can be effectually prevented, providing proper precautions are taken at the outset, but if once allowed to establish themselves in the house every crack and crevice will quickly become the breeding grounds of myriads. Then nothing but the most constant efforts on the part of the attendant will eradicate them. The following is the method I adopt for the prevention of these and other pests, at the same time keeping the house sweet and wholesome. Thrice during the summer months and twice during the winter all house nests, etc., occupied by the fowls are sprayed out with hot lime-wash, to which has been added a little carbolic acid, in the proportion of a tablespoonful of acid to each four gallons of wash, and once a week during summer, and every alternate week during winter the roosts, nests, and on the floor under the roosts are sprayed with kerosene emulsion, made as follows. Into two gallons of boiling water place $\frac{1}{2}$ lb. of soft soap, take off the fire when the soap is fully dissolved, and add one gallon of kerosene; stir briskly for ten minutes, when it will be found the mixture is about the consistency of cream; then add a little carbolic acid, and dilute the whole with fifteen gallons of water. Another very effective spray is made by boiling 1 lb. of tobacco stems in two gallons of water for a few minutes, but this is not equal as a disinfectant to the kerosene emulsion. I use a Martin's Knapsack Spraying Machine for syringing the houses, etc., and I find it far more economical than the ordinary garden syringe, as the latter wastes a great deal of the liquid. The above remedies I have proved to be a certain preventive against all kinds of insect pests which attack Poultry; but when houses are allowed to become infested with the pests it must always be borne in mind that not only have the matured insects to be eradicated, but the eggs laid by them will develop later, and which at the time would not be affected by the spray. These hatch out about 24 hours after being laid, so that to *thoroughly* eradicate the nuisance it is compulsory to continue the spraying daily for three or four days in succession. Where houses are so constructed that every crack cannot be reached by the spray, and in which it is suspected vermin are lodged, they should be fumigated with carbolic acid burnt in the house, care being taken to close up all openings, and the operator should also be very

careful not to inhale any of the fumes. To rid the fowls of the pests which are lodged on their bodies, I make a mixture of lime, wood ashes, and sulphur, and dust the birds thoroughly with this by the aid of sulphur bellows. Another very effective plan is to mix a little carbolic powder and lime into the dust bath to which the fowls resort."

ENEMIES TO BE GUARDED AGAINST.

Of all the enemies that are likely to interfere and cause loss in the management of Poultry, *Lice* head the list. The Australian climate is one of the most favourable for the breeding and rearing of Poultry—and lice—and it is well if this enemy to successful Poultry culture (though being so diminutive) is recognised as the most formidable opponent of all the natural enemies which prey upon this section of the feathered tribes. No trouble is too great to be taken to guard against the appearance of these pests, a little neglect on this head causing trouble and serious loss, so that preventive measures taken at the outset, and repeated occasionally, will secure immunity from their attacks.

Domestic cats in some locations cause no end of trouble, especially having a decided liking for young chickens; and where this is the case, extra precautions must be taken to secure the inmates of the coops from their depredations. The native cat in country districts is, however, one of the greatest pests the Poultry Farmer has to contend with, a frequent occurrence being the wholesale slaughter of the whole of the inmates of the house or yard in a single night. Little else can be done than by shooting or trapping them, it not being a wise plan to place poison in any shape or form at or near a Poultry run.

Crows and hawks are very destructive to young and also half-grown chickens in outlying districts, probably more of the latter being lost by their depredations than from any other. One Poultry Farmer acquainted us with the fact that he lost over 200 head annually by the crows, and gave half-a-crown each for every crow shot near his farm.

Rats are another source of annoyance, and occasion great loss at times, whole broods of chickens often being taken during one night; and once rats taste eggs, there is poor hope of getting chickens hatched, unless the hen is set in a position where it is impossible for the rats to get at her. The best plan to get rid of these pests is certainly by trapping, it being far too risky a proceeding to poison them, as frequently portions of the poisoned food will be liable to be dropped about the run or yard by the rats, and probably cause the death of fowls and chickens also, which may be very valuable.

Thieves can only be checkmated by making the roosting-house secure, keeping a good dog to warn you of their presence, and a gun ready at hand—a blank charge fired at thieves gives them a wholesome dread of sneaking round your hen-roost afterwards.

CHAPTER VII.

BREEDING FOR TABLE AND EXPORT.

THE export of dead Poultry from the Australasian Colonies, being such a question of importance, should be given the attention that it deserves. There is a vast and lucrative field in this product, as the demand in the English market is practically unlimited. We are aware that experimental shipments of dead poultry have taken place to the London market, and that highly satisfactory prices have been realised for the initial shipments, and this fact should lead to further and sustained efforts in this direction, as the climatic condition and surroundings of the Australasian Colonies are highly favourable for the production of table Poultry.

To give an idea of the immense demand, and which is steadily increasing, the statistics published in England for the year 1893 will show that the value of dead poultry and game imported into England amounted to the substantial sum of £580,000, and that eggs to the value of £3,675,000 were also imported during the same year. These figures clearly indicate the importance attached to the industry. One district alone, that of Heathfield, in Sussex, during the season supplied the English market with over 40 tons of dead Poultry weekly.

The prices range highest in England from January to May for ducks and fowls, and for turkeys and and geese, November to January. The dates of supplies required fit admirably into the possibility of the Colonies having a monopoly of this trade, being in such a unique position to cater for their market owing to our breeding season being at least five months ahead of the Home producers.

The best class of fowl only is required, inferior or common sorts would not be in demand, except at prices which would represent serious loss. Therefore, the breeding of the birds which are BEST adapted to the demand requires consideration. Crossbred birds are the easiest to rear, and it will be found that the Indian Game, Old Fashioned British Game, or Old Style Australian Game with yellow or white legs, crossed with Dorking hens will produce a nearly ideal fowl for English requirements. The cocks may be used with Dorking hens, or cocks of the latter breed with the hens of the various breeds mentioned; however, it will be found much better to use the Dorking hens as the different cocks of the Game varieties are more lively in their habits than the Dorking cock. An excellent system to produce birds which combine the necessary qualifications of high-class table Poultry, will be to use an Indian or Australian Game cock with Dorking hens for the first cross, marketing all the half-bred cockerels thus produced, using as breeding stock the half-bred pullets from this cross with a Houdan cock; again marketing the cockerels. Then the following year use the pullets from the Houdan-Game-Dorking cross with a pure Dorking cock. The pullets thus produced should be mated with a Game cock the next year, and so on, using each year in rotation a pure bred cock of either the Houdan, Dorking, or Game, the surplus pullets, that is those not required as breeding stock each year, will also rank amongst the highest class of poultry suitable for export.

To catch the market when prices rule at the highest point will, of course, be the aim of those who wish to make a success of the export trade, and to do so it will be necessary to breed the chickens early in the season, beginning in May and continuing till August, thus chickens hatched early in June should be well grown and fit to send away in December, and placed on the London market the latter end of January or beginning of February, keeping up a regular supply for the following three or four months. The chickens, thus bred should be well advanced at five or six months old, and would command high and remunerative prices if up to standard requirements.

It has been proved by repeated tests that the Indian Game, Houdan, Australian Game, or British Game crossed with the Dorking, carries less offal than any of the other various crosses, such as Game-Langshan,

Indian Game-Wyandotte, Indian Game-Orpington, Brahma-Dorking, Cochin-Dorking or Langshan-Brahma, and the difference in the delicacy, quantity and quality of the meat between the latter crosses and the first mentioned is very pronounced in favour of any of the Game crosses with the Dorking. The Langshan cross will undoubtedly give increased size and make hardy useful chickens for local consumption, but it will not produce a really high-class table fowl suitable for export. Where the Brahma or Cochin cross is used with the Dorking, though size is often increased, the result is a coarser bird which does not improve the quality of meat nor the amount of flesh on wings and breast. The Indian Game or Old Style British Game cock crossed with Brahma hens will produce a fairly good bird in some respects, but generally too coarse in the bone and wanting meat on the breast. The Malay, that is if a short legged cock is used to cross with Dorking hens, also gives excellent results, but, as a rule, the chickens so bred are rather unsightly on the table owing to the length of limbs. The Aseel is also one of the best breeds for crossing with the Dorking, though trouble is often occasioned in the rearing of the progeny owing to their combative nature. As the Indian Game is in itself a combination of the Malay and the Aseel, it is a decided improvement on either of those breeds for crossing purposes.

The Langshan is often quoted as a breed possessing first-class qualities as a table fowl, and is undoubtedly the best of the Asiatic breeds as a table bird, but the coarseness of the flesh and objectionable colour of the legs place an effectual bar on this cross ever becoming very popular. It is without a shadow of a doubt one of the most useful all round breeds for general purposes; but the same applies to the Plymouth Rock, Orpington, or Wyandotte, all thoroughly good utility fowls, though not specially adapted for table Poultry owing to the yellowness of the skins.

Old Style British Game and the same class of Australian Game are in a very front rank for delicacy in flavor and abundance of meat in proportion to the amount of waste offal and bone, but their small size and rather slow maturing deters them from being bred pure for export purposes, the cross with the Dorking does not detract from the quality of the meat, being, if anything, sweeter and whiter, and, as greatly increased size and early maturity are gained, cross-bred birds are preferable. The Dorking pure bred being of delicate constitution, is therefore, not suitable without aid from some other source to rear for table or export.

To breed ducks for export, cross-bred birds are again superior, maturing quicker than pure bred, and this is an important point to bear in mind. We recommend the Aylesbury drake crossed with Pekin ducks or the Aylesbury drake with Rouen ducks, or the Pekin and Rouen crossed both ways, or the Common duck crossed with the Muscovy drake, using a pure bred drake of one or other of the varieties for stock purposes each year. There is an equal prospect of making duck farming pay by breeding for export, as they mature so quickly for the table, much speedier than fowls. Young ducks, if well-fed and attended to should be quite ready for market when they are nine to twelve weeks old. One drake to each five or six ducks will be the best for breeding stock, and the ducklings should be hatched in June, July and August to catch the English market at a time when top prices can be obtained. An incubator will be far and away the best method to adopt for incubating the eggs, and their food, when hatched, should consist of pollard, crushed oats or barley, and potatoes mixed with bran and pollard, and a little meat. This should be continued until they are three or four weeks old; scalded wheat or oats and a little corn may be given after this period, bone meal mixed in the morning meal will assist growth considerably, and green food in some form must be supplied.

The feeding and attention to the drinking water should be regular and systematic. If well cared for and fed properly a duckling from any of the crosses mentioned should when 3 months old scale 4lb. live weight, and as they command in the London market from 8s. to 12s. a couple, should pay handsomely. It will be understood that inferior specimens will not fetch anything like the price quoted, this being for birds of prime quality, and attention must be given by getting them hatched early. Cleanliness, good sound food, separation of the sexes and yearly change of blood will obtain results worth working for.

In breeding geese the best cross is between the Toulouse and Embden, but even the ordinary run of geese can be highly improved by using a pure-bred gander of either variety. The eggs should be given them to hatch themselves, the nests made on the ground, and the goslings when hatched should be fed on the

same diet as that recommended for ducklings, and if allowed a free range where plenty of grass is procurable will do well. At 4 months old the young geese should weigh about 8lbs., at 5 months 10lbs., at 6 months 12lbs. They must not be over-fed, as this retards early growth, and is very injurious.

To breed turkeys for export, if careful and systematic attention is given them when hatched, they will do as well as ducks or geese. The American bronze-wing turkey cock should be used to cross with ordinary hens—3 or 4 may be allowed; this cross will impart stamina and size to the progeny. The turkey hen should be allowed to hatch the eggs, making the nest on the ground, placing 12 to 15 eggs under her. The young ones when hatched must be carefully attended to and fed with bread crumbs, hard-boiled eggs, finely-chopped onions and boiled rice in the early stages, and afterwards with pollard, bran and oatmeal, with plenty of soft vegetables chopped up small and scalded with boiling water or milk; the food must be given in a crumbling state, sloppy or wet food being injurious. They should be kept perfectly dry and given good shelter, and a little meat given now and again will be found to benefit them considerably; after the birds are 2 months old, wheat, barley, or a little maize may be given.

The approximate charges in connection with the export of poultry are: Ducks and fowls, 1s. 3d. each; turkeys and geese, 2s. 6d. each—this includes killing, dressing, freezing, packing, freight, and London salesmen's charges—so there is great encouragement held out to those who are sufficiently interested, and who will give the breeding and rearing of table poultry for export the necessary attention required; and we feel certain that the inducements now held out are so great that in a short time, within a few years at most, Australian poultry farmers will bestir themselves and participate in the benefits that would accrue from a share of the export trade in poultry with Great Britain.

In connection with the breeding of poultry suitable for export, the Government expert of the Agricultural Department, N.S.W., Mr. G. Bradshaw, in his official report on the exhibits in this section at the late Bathurst A. H. and I. Association, speaks of the Australian Game chickens, which he selected as the prize winners. He states: "The Australian Game had long breasts, with great depth, carrying a wealth of flesh rarely seen in any other variety, and of the much desired white or pale primrose colour, with an entire absence of the objectionable orange-red so often observed in this breed." Again, in his report on the 27 exhibits in the section at the late N.S.W. P.P.C.D. Society's Show (*there being no Australian Game or cross-breeds of the variety competing*), he states: "For the pure-bred Cockerel prize, Orpingtons, Scotch Greys and Spanish competed. The Orpingtons were too old, all the others being too thin of flesh; no award made. In pure-bred pullets, first went to short-legged, fine-boned, well-fatted Orpingtons; small, but plump Spanish getting second. The first prize winners in the cross-bred Cockerel class were well grown, meaty, Indian Game-Orpingtons, the Malay-Dorkings which gained second place being close up. The pullet class contained half-a-dozen really excellent specimens, all with good, square bodies, carrying a beautiful quality of meat, and plenty of it; Indian Game-Orpingtons were first, a trio described as Malay-Dorkings scored second, a slight difference in age only separating the two exhibits." Mr. Bradshaw adds that the cross-breeds had almost every quality desirable for the export trade, and that the breeders evidently realise the importance and understand the system of putting on flesh. We incline to the opinion, *that for an ideal table bird*, the Australian Game-Dorking would be an easy first, using in all cases the Australian Game cock with Dorking hens. In this cross we combine the highest quality and quantity of meat, especially on the breast, wings and thighs, with great size, quick-growing, and of the hardiest constitution.

POULTRY FARMING IN QUEENSLAND.

To Mrs. Lance Rawson, of "Rocklands," Rockhampton, Queensland, we are indebted for the following notes on Poultry Farming in that colony. Mrs. Rawson's experience extends over a wide field, and we are certain that our esteemed contributor's notes will be read with great interest. Mrs. Rawson writes: "Poultry Farming in Queensland as a profession, or means of livelihood, is very much in its infancy up to the present time (1897). The fingers on one hand would, I am convinced, be sufficient to enumerate all the farms in this colony where a specialty is made of Poultry, or where the birds are bred with a view to money-making,

or any commercial purposes. There are plenty of places where the women and children own and run the Poultry for their own advantage, and to make what they can out of them, the farmer conceding them this privilege, on the understanding that they buy their *fal-lals* out of the proceeds; and on many places *he* carries in the eggs and young birds for market for the wife. Asked if he is doing well, he will tell you, 'Nothing at all; wouldn't come to town, only I bring in a few dozen eggs and a pair or two of cockerels for the missus.' But he does not tell you that these same few dozen eggs and pair or two of cockerels each week are keeping the household in groceries and butcher's meat, and that without *them*, *he* would be forced to sell horse, cart, or tools to keep the bills paid. The above has been the most familiar aspect of the Poultry question hitherto in Queensland; but I am glad to say that of late there has been gradually developing a much greater interest and personal understanding among farmers of the capabilities and possibilities of the Poultry industry in Queensland. They are at last awakening to the fact that the colony possesses a climate and natural advantages second to none in the world for the breeding and raising of all varieties of Poultry, and by the time we are five years older I quite expect to see larger and finer Poultry Farms in Queensland than are to be found to-day in the Mother Colony of N.S.W. For, with the climate we have, and the many advantages such a climate carries with it, the industry must go ahead. It only wants a few men with a little capital, and some knowledge of the business, to start in each district to give it an impetus, and make others who have but small capital take it up. There is no fortune in Poultry, no matter how you work it, or to which branch you devote your energies; even if you can afford to go in for all, *you can't make a fortune*, and it is as well for every one to know and understand this at the outset. But how many industries can one point to and say, 'There is a fortune in that business?'—unless it is something new, and likely to be of immense value to mankind at large. Of course, one can say, 'Well, eggs are universally used, and necessary in many more ways than for domestic purposes, and Poultry is a universally used diet.' So they are; but in all industries where the profits are so small, as in the production of fowls and eggs, and the need so common, every household makes an effort to supply itself, and fortunes even to the largest producers are impossible. The eggs at the lowest rate cost 7d. per dozen to produce, and if a hen is kept for the purpose of laying eggs only, and selling them at so much per dozen, she is worth again, at the least, about 11s. Though if you work it out to finality—by which I mean calculating that all the eggs are hatched, and produce other hens, who also lay and re-produce their species—the hen is quite the most profitable of live stock, and the sum tots up to something like £60 per hen. I forget the exact figures, but it is just as impossible for one to reckon on one's profits on this scale as it is to reckon on any other speculation that works out with charming ease and brilliancy on paper. If the hen increased steadily at the rate which appears legitimate, the world would very soon be full of hens. But, though there is no fortune in Poultry Farming, there may be, and there is, a good living in it for the man or woman who is content to earn it in pence and shillings instead of pounds, and who will look closely after the small matters. There is no business that I know of so made up and so dependent on little details as Poultry, whether kept for fancy or market purposes. For instance, a dirty fowl-house may cost you the loss of half a dozen pure-bred chickens. Neglecting to light the lamp in the foster mother for one or two nights may put your batch of pullets back from laying a fortnight or three weeks. The want of a few well-placed nests may mean the loss of eggs. These are but a few of the small things on which the success of the undertaking may be either made or marred. The Poultry Farmer of all men should be a man of method, precision, and regularity. On these much depends. I think I may, without fear of contradiction, take credit to myself for having done much to encourage and advance the industry in this Colony. It is something like fifteen years since my first article appeared in the *Queenslander*, and in which I offered to assist with advice any Poultry keepers who liked to write to me. For some months letters came with queries at long intervals, and not more than two or three per month, but gradually, as the Poultry column grew in favour, and my articles were copied into other newspapers, letters became more numerous, till at the present time the average is something like nine letters per week on matters connected with Poultry. Many of these correspondents are mere children, or young people between the ages of 12 and 20, several of whom I started myself with

AUSTRALIAN FANCIERS.



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gifts of eggs or birds, and who write me every month or two to report progress. Within the Colony of Queensland, I believe, any and every breed of Fowls can be kept with advantage, as climate of almost any kind, from severely cold to tropic heat, can be found. For instance, in the southern portion bordering on N.S.W., and round about Toowoomba, Warwick, and all over the Darling Downs country, such breeds as Cochins, Brahmans, etc., in fact all the heavier varieties that do best in the cooler parts, do well, and can be farmed to advantage. Then, coming north to Maryborough, Gympie, Bundaberg, and the country inland from there, though the feather-legged breeds *mar* do fairly well, they are better discarded, save except for crossing purposes, for which they are invaluable. But I would not advise anyone who intends to make his living by Poultry to try either Cochins or Brahmans north of Brisbane. Many people have contradicted this statement, and tried to prove their case by the fact that *they* personally are successful with one or other of those breeds. But the success of the man or woman running a hobby, and able to devote special attention to two or three dozen birds, is a very different matter to running a couple or three hundred head for a living, with the constant necessity of considering the food bill, and of making the maximum of profit with the minimum of outlay. Cochins and Brahmans are splendid fowls for a hobby, but they are not a breed to keep in a warm climate. Leghorns, Andalusians, and Minorcas are the money-making fowls *par excellence* for the greater part of Queensland, or, say, from Maryborough, Bundaberg, all through the central division of the colony, and as far north as Townsville and Cairns. It would almost seem as if the climate resembled that of the Mediterranean. On the vast tablelands of Queensland, almost any variety of fowl does well, I am told. To the very far north, and round about the Gulf, all the varieties of Game, especially Malays, thrive as if in their native place. Plymouth Rocks do very well in some of the warmer districts, as should Wyandottes; but, unfortunately, very many of the heavy breeds are inclined to run to feather in the warmer parts of the colony. It seems to develop into a disease with certain breeds after they have passed their second year; their bodies dwindle away to skin and bone, yet are covered with an abnormal quantity of feathers. Spanish do very well in the southern parts, and, strange to say, also in some of the far inland districts where the country is not too sandy. I am inclined to think that they will do well and pay to breed round about the vicinity of the different Bores. But the Spanish cannot be called a general utility Fowl for Queensland, as the hot sun in summer scalds and blisters the face. Hamburgs do well wherever Minorcas and Leghorns do, but they lay such a small egg that few care to keep them for profit. Crossed with Orpington, I find them excellent layers, good foragers, and wonderfully hardy. It is quite a common thing to see the Fowls in Queensland roosting in trees, on fences, or on the ridge of some outhouse. Many Farmers run up a wide ladder between two adjacent trees for the convenience of their feathered flock; and it is not at all unusual, when riding through a paddock at night, to come upon such a place with, perhaps, turkeys, Guinea fowls, and common fowls, to the number of 100, or even 200, roosting thus quite securely and contentedly in the moonlight. This is, of course, only possible in the warmer portions of the colony, but undoubtedly the Fowls much prefer it to close houses during the summer months. Indeed, I find a great difficulty in inducing my Game Fowls to roost in a closely-boarded house even during the winter, and I am inclined to think they do best when allowed to follow their own inclinations and roost in the trees. During the whole of the extremely wet weather in 1893—the year of flood records—between 30 and 40 of my Game Fowls roosted in a tree, and on two or three nights the wind was so strong that several of them were blown off, yet only one was lost; the others were none the worse for their trying experience. The very best fowlhouse, and the one that is fast superseding all others in North Queensland, is simply a good secure roof, with wire sides and wooden shutters attached to the roof with hinges, so that during the hotter months they can be raised to form a verandah all round, and lowered at night, if necessary, as a 'wind-break,' being kept closed during the winter months. The wire can be dispensed with round the sides, unless snakes, native cats, or other animals destructive to Poultry are prevalent. By far the best fowlhouse I ever had was built for me by a couple of Kanakas. The wall-plate was barely 5 feet from the ground, but the roof (it was a round house), ran up to a peak to something like 20 or 30 feet. It was thatched with grass, and the roosts were placed round the centre post in graduating circles. Strange to say, it was cool in summer and warm in

winter; and I would recommend Poultry Farmers in N.S.W., and the other Colonies, to try a house of this description. Of course, it would never do for a nesting-house, on account of vermin getting into the thatch; but I hope very few Poultry-keepers now-a-days have their fowl-nests or brooding hens in the fowlhouse. Vermin are the greatest trouble we have to contend with. In North Queensland, do what one will, it is impossible to avoid being pestered with them to some extent; the only thing is, one *can* keep them within bounds by taking special and continued precautions. During the hot season in North Queensland, I have seen them so bad that the only thing possible was to burn the fowl-house down. The worst disease known in Queensland, is what is commonly called 'warts'; I used at one time to think it only chicken-pock in its primitive form, and on its original victim, the chicken, and I am still inclined to that idea, though not quite so positive. The disease I have seen called 'warts' in the other colonies, is not at all the same. In N.S.W. many Fanciers state it is caused by mosquito bites, but such is not the case in Queensland. It is undoubtedly a blood disease of a highly infectious character. In the early stages it is accompanied by fever and loss of appetite. I have killed chickens suffering from the disease at this stage, and have found by examination with a strong magnifying glass, pocks, spots or warts, not only on the inside lining of the crop, but also on the intestines. After the spots develop externally, they apparently disappear internally, as birds that have died with the head, eyes, etc. covered with warts, upon being opened, were found to be almost free from them internally. Another thing, the chickens that may be nearly blind are, as a general rule, in a good state of health otherwise, and will eat well, and even fatten if fed by hand. Apparently there is no positive cure, though various remedies advertised do some good at times. The best I know of is the colocynth, or bitter apple (the powder), given in the form of pills:—An ounce of colocynth worked up with common yellow soap will make about 300 to 320 pills, and one or two per day is the dose, according to the size and age of the chicken. A small dose or pill of aloes, given alternately with the colocynth, has a still better effect than the latter alone, at least such has been my experience lately. For this valuable remedy I am indebted to a gentleman in Central Queensland, who was at one time a veterinary surgeon. He has never found it fail, except when the weather has been very wet and cold. In the other colonies they cannot understand that this disease of warts means an annual loss of thousands of young chickens to the general keepers of poultry. In fact, I have known many who gave up trying to rear chickens, preferring to buy pullets for layers and cockerels for table use, at an age when all danger of 'warts' has passed. Warts and vermin are our worst trouble, and without them I would guarantee that Queensland would possess the finest and largest Poultry Farms, and the Farmer would be able to rear as fine fowls, *at a less cost*, than any other colony in the Australasian group. As conditions are at present, we require a breed of fowls that are close in feather and clean legged, so as to offer least opportunities for the lodgment and accumulation of insect pests, active in disposition, so as to travel easily and quickly in search of insect life, strong in the legs and feet, to be able to scratch well and to get into the white ants' nests, found all over the colony, and for the purpose the Indian Game seems best. The pity is that the hens of this breed are such indifferent layers. For some portions of the year here the fowls require but a trifling amount of artificial food to supply their wants, being able to procure such an amount of insect food. I have known my own fowls to refuse grain for weeks together while the grasshoppers, caterpillars, and other forms of insect life were plentiful. Directly after the big flood in 1896, a plague of caterpillars swarmed through the central districts; our paddocks were swarming with them for over a fortnight. Fowls, ducks, and young turkeys used to come home at night with their crops packed, almost to bursting. Fortunately, we do not have a visitation like that often, but for some weeks *every* summer we have the place literally alive with grasshoppers, and there are few parts of the colony where one *cannot* find a white ants' nest for the chickens every few days.

For the Duck Farmer there is a big future in Queensland, if he will only utilize the natural resources, the big lagoons, swamps and creeks being all full of animal and vegetable life. I believe thousands of ducks could be raised at a trifling cost on the big water reserves of the northern portion. At the present time I have a flock of between twenty and thirty Pekin ducks, that almost live on a lagoon close at hand. Directly they are let out in the morning they make off, and do not return till high sundown, when they receive their

only feed for the day, consisting of a bullock's liver and about a quart of maize. They are always in good hard condition, and for the last fourteen months I have never been without one or two duck eggs every morning, though they are too rank or fishy for table use. This season I intend raising a large number, and allow them to live principally on the lagoon and adjoining swamps. So far as I am aware, there is not one *duck farm* in Queensland, the difficulty in some parts being the periodical droughts and dry spells, when often water has to be carted for human consumption from six to twelve miles. Then, of course, the ducks would fare badly, but there are many other parts where a regular supply may be depended upon.

Geese are not kept in great numbers; this country being essentially a horse and cattle growing country, they are objected to on these grounds, such being the excuse offered for their rarity.

Turkeys do very well in some districts, chiefly round about the vicinity of old goldfields, where they can obtain a plentiful supply of quartz grit, but, like other varieties of poultry, they have not been thoroughly tried in any but the most southern parts.

Now that our Agricultural College is approaching a tangible reality, possibly Poultry will receive its share of attention. It is quite time that it did so, and that an expert was appointed to go through those districts, where there are small selectors who have put all their savings of years into the land, and who are vainly struggling on from year to year, in many instances being quite on the verge of starvation. Many of these people could and would become Poultry-raisers if they knew how to begin, and what is urgently required for this Colony is a Poultry expert, whose duty it would be to inform such people of the best varieties to take up for utility purposes, and show how to make them pay. There is always a large and growing demand for Poultry and eggs for local consumption, outside of export possibilities, and even if the market price is a low one, the birds and eggs must be produced at a lower. Should a glut in the market arise, then the expert could teach the growers how to preserve their eggs and Poultry till a fair price may be obtained. There is a decided opening for the drying and smoking of Poultry, as is done in China. The amount of ignorance on Poultry matters displayed in some of the communications I receive is appalling, and is, to my mind, direct evidence that an expert who could go among the people, advise and teach them, would do incalculable good by quickly resuscitating the languishing state of affairs into which the majority of our smaller selectors and farmers have drifted."



CHAPTER VIII.

SELECTION FOR EGG PRODUCTION.

WHERE the Poultry Farmer aims at the object of producing eggs alone for market, and is content to sell off surplus or worn-out hens and young cockerels at any price, the field is clear and open, and the method to be followed will be narrowed down to the selection of the BEST LAYING BREEDS. Some markets require eggs which have a brown tint, and, as there are but few varieties which lay eggs of this colour, that is, pure bred birds, and which cannot be classed as GOOD OR HIGH-CLASS LAYERS, crossing will be necessary if quantity is desired. Breeds such as the Wyandotte, Orpington, Plymouth Rock, and Langshan, lay brown coloured eggs, which, as a general rule, are rather small, but, to compensate for the latter failing, redeem their characters by laying excellently during the winter months when eggs are scarce. Where the COLOUR of the egg is not so much a consideration as SIZE, it will be found that the Minorca, Leghorn, or Andalusian is far and away the best for the purpose; and it is possible, by due selection and preference in only choosing eggs for hatching that are laid by hens who are GOOD LAYERS OF LARGE-SIZED EGGS, a strain can be established which will be continually improving in this qualification the longer it is kept and studied. Another vital question frequently overlooked by many who seek to make a living out of their poultry, is the fact that they value a hen or hens for the sole reason that they may produce 180, or even more, eggs per annum, overlooking the fact that those birds may not, after all, be as profitable as other hens that do not lay more than an average of 120 to 150 eggs per year. The latter hens often lay some portion of the batch at a time when high and remunerative prices can be obtained, while the more prolific hen in ACTUAL NUMBER OF EGGS LAID, will mostly lay some portion when the market is at a low ebb. The pure-bred Minorca hen, for instance, is one of the best, if not the very best, layers, under favourable circumstances and surroundings, but, under exposed conditions and during the winter months, will be found inferior to moderate laying breeds, such as the Langshan, Orpington, Wyandotte, or Plymouth Rock. This is the important point that the practical Poultry Farmer turns to such good account by CROSSING the different varieties, so as to embody the different virtues possessed by the various breeds. As a recognised fact, the Minorca, Leghorn, and Andalusian, are quite in the front rank as layers, in point of quantity and size of eggs, but as table fowls they are very inferior. This necessitates these varieties being crossed with some other breed, if a reasonable return is to be expected from the surplus stock and cockerels which are certain to be produced, no matter how carefully bred. Thus we find that the Minorca, crossed with the Langshan or Orpington, will produce an excellent layer of large and well-flavoured eggs, or the Minorca, crossed with the Light Brahma, will give almost similar returns, and the surplus stock from either cross will realise a fair price for home consumption. The Leghorn, though recognised as the queen of layers *under any circumstances*, is one of the worst table birds; and the Andalusian and Minorca, though running the Leghorn closely for egg producing qualities, are generally very little superior for edible purposes. Therefore, the Minorca, Leghorn, or Andalusian, if crossed with any of the other varieties, will indisputably augment egg production considerably, but will in few instances provide a bird suitable for export, though useful for local consumption.

Again, taking the Indian Game, which can safely be classed as an INFERIOR LAYER, and crossing with the Leghorn, Spanish, Andalusian, or Minorca, the progeny will be found FAIR layers and FAIR table birds, but, as there are many other crosses combining the two qualities in a much greater degree, they are not worth considering, and are only quoted as examples.

The cross between a Spanish cock and Light Brahma hens produces a fine large-framed bird, a fair layer of good-sized eggs, and possessing moderate table qualifications. The half-bred Spanish-Brahma hens or pullets, bred to an Orpington cock, will still further increase the laying powers of the pullets so bred, and the edible qualities will again be slightly improved. If the Spanish-Brahma-Orpington pullets are again crossed with a Minorca, Andalusian, or Leghorn cock, the laying powers will be strongly encouraged, but the table qualities of the birds so bred will be moderate.

The Leghorn and Andalusian, whether pure or crossed, are extremely hardy, precocious, and very prolific in the number of eggs they will lay, and where egg production and eggs alone are the desideratum, there are none to equal them. Surroundings and circumstances, even if disadvantageous, have no deterrent effect if they are well fed, and it will be found that they are veritable laying machines; but, on the grounds of it being necessary each year to replace a certain number of the laying hens with young pullets, and as the cockerels produced are next to worthless for market, though, at the same time, not to be despised for home consumption, there is a strong and sound objection to those breeds pure where a fair market price is expected to be realised for surplus stock. A certain amount of loss is occasioned each year by this failing, which is not compensated for by the number of eggs laid.

In selecting the breeding stock to produce layers, all these matters must be weighed over thoroughly, and the experience gained by many competent authorities points towards the Minorca-Langshan or Minorca-Orpington crosses as combining the best of laying capabilities with good size and fair realisable table requisites. The Andalusian-Langshan or Andalusian-Orpington crosses also run the former closely, and the Leghorn-Plymouth Rock or Leghorn-Wyandotte crosses are good and reliable ones. If the half-bred pullets from the Leghorn-Plymouth Rock or Leghorn-Wyandotte are crossed with the Orpington, the laying powers will be slightly increased, and the table qualities improved; and if either the Leghorn-Plymouth Rock-Orpington or Leghorn-Wyandotte-Orpington pullets are again crossed with the Minorca, the laying capabilities will be still further increased, though the table qualities will show no improvement. If the same cross-bred pullets are matched with a Houdan cock, the laying powers will be encouraged, and the table qualities strongly augmented. It is possible with the commonest of laying hens, by using a cross with the Spanish, Minorca, Leghorn, or Andalusian cocks, and by choosing, for hatching, the eggs from the best layers thus produced, to perpetuate a strain of laying fowls whose powers of egg production would be little inferior to any one of the pure-bred laying varieties, besides steadily increasing size and stamina throughout the whole flock. This can be followed out for an indefinite time, using a pure-bred cock of one or other of the varieties each year with good and excellent results; but it will, at the same time, if opportunity offers, pay at once to cross pure-bred birds of the one variety, or, on the other hand, judiciously intermingling the laying strains of poultry with those which possess some marketable value for the table, the NETT returns on birds so bred being invariably higher than those that are bred for egg production alone. Though, again, after a series of top crossings with various breeds, the stock will necessarily present a mongrel appearance, unless the crosses used are selected with a definite object.

If this is all thrown aside as being too complicated to carry out to a successful issue, the Leghorn, Minorca, or Andalusian, kept pure, will fill the egg basket, if no more.

In order to secure a regular supply of eggs, it is advantageous to keep pullets and young hens only, as they lay a far greater number of eggs the first and second seasons than they do subsequently. This can be easily arranged by breeding each year a third of the total number of laying stock kept on the farm, drafting out those hens which are finishing their third year, AS AFTER THAT AGE THEIR DAYS OF PROFITABLE EGG PRODUCTION HAVE PASSED, and they must be disposed of if profit in the management of the farm is desired. Moreover, it will be necessary, if ultimate success is wished for, that the Poultry Farmer should BREED HIS OWN LAYING STOCK. He will then be aware of where a leakage is likely to occur, much more so than if he bought up the laying hens or pullets at the beginning, and obtained supplies from outside sources when renewals were required. The accommodation required for some half-dozen breeding-pens would not be large, and the advantages derivable from breeding the whole of the stock on the spot will be incalculable.

For instance, where pure-bred stock is not solely kept, should the cockerels produced from a given cross this year not be up to the STANDARD requirements for table purposes, the mischief could be easily remedied the following year by a judicious cross with one of the more prominent table breeds, to improve the desired quality; or, if the pullets were found deficient in laying capabilities, this failing could be checked by an infusion of new blood from one of the best laying varieties in producing the next relay of pullets, and would assist greatly in keeping the balance.

At the same time, though QUANTITY must necessarily be an important factor in the products of a Poultry-egg Farm, great care must also be taken that the QUALITY of the eggs marketed are right up to standard, as, if a falling off is noticed in the latter respect, that which is gained on the one head is swallowed up by losses on the other. Once the consumer becomes satisfied that confidence is not misplaced in dealing for your products, this must not be sacrificed, or loss will be inevitable.

It must be seen that the intelligent and practical Poultry Farmer in Australia has before him an almost unexploited field, and that by due selection of his stock to attain a given object, the results will exceed anticipation when conducted in a systematic and careful manner. Poultry can be moulded at will by selection and preference; nothing must be left to blind chance; it is only by well-directed and sustained efforts that the enterprise is likely to turn out profitably.

In quoting the different crosses given in this chapter that are most suitable for egg production, our readers must banish from their minds the thoughts that it is only the theory of the thing that we have expounded. This is not so; the whole of the instructions and advice given have been practically illustrated by experiments, though, naturally, it will be a difficult task for one who is just beginning, and who possesses little or no knowledge of poultry, to make a success from the jump. However, the course given is clear, and no insurmountable obstacles are likely to arise if the question of selection for egg production is carried out in a thoroughly methodical and practical manner. Without this is done, it is best to leave Poultry Farming to those who will do so.

Again, if it is desired to keep a pure breed, which, in addition to fair laying powers, possesses a fair value for market purposes, we know of no better breeds than the Orpington, Wyandotte, Langshan, and Plymouth Rock, in the order named. Practical experience has shown that birds selected and bred for egg producing alone, no matter how large the return on this head may be, will not give the same actual profit after two or three years' trials, as a pure or first-cross strain of poultry combining the two qualities—that of egg producers and market birds. This is occasioned by a certain return being obtained by the sale of hens past their profitable laying age, the sale of surplus cocks, and the cockerels which must inevitably be bred, proving a decided advantage over the system of breeding stock for eggs alone, as the hens, cocks, and cockerels of this breed would be scarcely of any value whatever for market purposes. At the same time, any of the mentioned breeds, such as the Orpington, Wyandotte, Langshan, or Plymouth Rock, can be bred up to a very high standard as egg producers, without sacrificing their value for table purposes to any extent. Therefore, a larger profit would be obtained by giving the question of breeding to this standard the attention it deserves.

This cannot be done with the more prominent laying breeds—Minorcas, Leghorns, etc. Their egg producing capabilities may be considerably increased, good as they undoubtedly are; but it is impossible, unless by the aid of some distinct cross, to improve their table qualities. Therefore, though they may lay a far greater number of eggs during the year, they will not be nearly so profitable as a breed combining the two. A great diversity of opinion exists on the question of pure-breeds *versus* cross-breeds, but, as a matter of fact, the principal breeds we have enumerated as combining the desired qualifications of egg producers and table poultry, are, in reality, themselves cross-breeds strictly speaking—a number of different varieties being used in their composition—though now their characteristics are so firmly fixed that they rank as a pure-breed. Therefore, to take up a breed and cross again would scarcely be an improvement, taking into consideration the fact that these breeds were formed and bred thoroughly well to attain the object. Cross-bred birds will, as a rule, be found more precocious, but there are certain to be some (possibly a minority of the stock) which

will be found inferior to either parent in the essential qualities, whereas a pure-bred strain will possess much greater uniformity, and, in our opinion, pay much better in the long run, more especially if fresh blood of the same variety on the cock's side is used each year as breeding stock. This virtually amounts to a cross, but has not the objectionable features attached to crossing with birds of a distinct variety, the latter plan followed out, in a few years having the effect of producing a nondescript breed of fowls, which has a tendency, owing to continual crossing, to revert back to inferior ancestors. Nothing but the greatest care and judicious selection of the stock-birds introduced each year will combat this difficulty, and one unwise cross will undo years' work of patience and study. Not so with pure-breeds given the same attention, THEIR characteristics are strongly fixed, and they are not so likely to sport ; in fact, much greater dependence may be placed upon their ability to do, and do thoroughly well, the task expected from them.

Again, experiments have been made to see if the number of rows of corn on a cob could not be increased with success. The same method which was pursued with the corn is applicable to poultry breeding. For example, starting with hens which lay 120 eggs each in a year ; among their progeny there may be some which lay 150 eggs per year, these being selected for breeding. From these again, some are produced which lay 175 eggs per year, and from these it is possible to breed hens which will lay 200 eggs each per annum. The problem is not so easy to carry out to a successful issue with poultry as with corn, for it is compulsory to breed the cocks as well as the hens each year from the most prolific layers, in order to succeed. If the breeding of the hens alone is studied to this end, a cross introduced on the male side which is lacking in prolificacy, will considerably hamper the effort. It therefore becomes absolutely necessary to breed the cocks from hens which possess the desired qualification, and which exhibit a cumulative ability in the desired direction. It is just as essential that the cock used for stud purposes should be bred from a hen whose record is 175 eggs per year, and from a cock that was bred from a hen that laid 150 eggs per year, as it is that the hen was bred from one that laid 175 eggs per year, and whose mother laid 150 eggs per year, if the hen with a 200 egg record is to be produced. Breeders of laying fowls are too apt to forget this important provision, and introduce cocks for stud purposes with little regard to their breeding, and then wonder how on earth it is that the prolificacy of the flock does not increase.

The feeding of Poultry for eggs also plays a prominent part ; and, if the end in view is to obtain eggs in abundance from the stock, they must be fed accordingly to develop and sustain the enormous drain upon their systems, caused by the daily, or nearly so, production of an egg. The greater variety of foods which combine the essentials that can be given the better.

To feed for eggs, an excellent plan is to feed five mornings in the week with soft food, mixed as follows : About one-third of various cooked vegetables, mashed fine, a large teaspoonful of condition spice, two days ; cayenne pepper, one day ; condition spice, the next two days ; powdered charcoal, one day ; and a teaspoonful of salt to each bucketful of feed daily. Into this is mixed two-thirds coarse oatmeal, the balance of cornmeal and pollard in equal quantities, the whole being mixed thoroughly well with BOILING water into a crumbling mass ; and, if green-cut bone can be obtained, about three-quarters of an ounce to each hen also should be mixed with the food daily. If green-cut bone is not obtainable, meat, in nearly the same quantity, should take the place of the bone. This will contain a great variety of food elements, and this is an important desideratum, as a hen requires a *variety* of foods to supply her many physical needs, and allow her a surplus to produce eggs in quantity. This morning food should be fed in troughs, so that all will get a nearly equal share.

For the noon, or mid-day, and night feeds, wheat, oats, barley, buckwheat, and whole corn should be fed alternately. *Whole wheat is the very best grain for laying fowls*, barley next, and oats, buckwheat, and corn in order named. Barley or oats should be the mid-day feed five days in the week, and wheat the night feed five or six days in the week. To this must be added a plentiful supply of grit and oyster-shells, and plenty of clean, cool water.

An excellent system of feeding is :—On Monday, soft food, oats, wheat ; Tuesday, oats, barley, whole corn ; Wednesday, mixed soft food, buckwheat, wheat ; Thursday, soft food, oats, barley ; Friday, wheat, barley, corn ; Saturday, mixed soft food, oats, wheat ; Sunday, mixed soft food, barley, oats.

During the summer the corn may be entirely omitted, and any one of the other grains substituted. This system of feeding will give highly payable results from a very inferior stock of laying hens, and, applied to birds bred for the purpose, will exceed anticipations. Where practicable, the amount of green-cut bone could be slightly increased on the two mornings on which grain is given, taking the place of the mid-day meal of grain on those days. Lettuce or cabbage should also be given daily if the birds have not free range over grass, but can be dispensed with under the latter conditions ; and it will be found that corn fed at night a couple of times each week during the winter will act on the same principle as lighted fuel in a stove, by keeping their bodies warm, and stimulating them towards the desired end.

BREEDING FOR BROWN-COLOURED EGGS.

In much the same manner as in selecting the stock to increase the egg productive capabilities of a flock, the same rule, in breeding stock to produce eggs with the desired brown tint as preferred for some markets, must be followed. Right here we would wish our readers to fully grasp what a *brown-shelled* egg is. From most breeds, with the exception of the Mediterranean races and their offshoots, eggs more or less tinted will in some proportion be produced (that is, on comparing them with the pure white egg laid by the Spanish, etc.), but which would require a stretch of imagination to be classed as BROWN eggs. There is a wide range in the colour of eggs laid by nearly every breed, and if this is not artificially cultivated, either to produce white-shelled or *vice versa*, the eggs will always vary from the pure white to almost a deep brick colour. To call an egg a *brown egg*, it should possess enough colour to be distinctly noticeable at the first glance. Hens which lay a dark-coloured or brown-tinted egg will again be found to produce even these of various shades, the first lot of eggs in this case being darker than those laid later in the season, the colour gradually becoming lighter and lighter each successive egg. The cause of this peculiar effect is yet an unsolved problem, some authorities arguing that the food fed to the birds affects the colour of the shells ; but, as the colour varies at the different periods in such a marked degree, though the birds are fed with the same food, there can be little dependence placed on this theory. Some interesting effects are often produced when washing eggs, proving that the surface pigment is removable to some extent ; thus, a dark egg, when washed, will appear lighter in colour, and, on the other hand, a very light or white-shelled egg will at times become much darker. It is possible, by selection and preference in breeding from hens which lay dark or brown coloured eggs, mated with cocks bred from hens which also laid a brown egg, to definitely fix this quality of producing brown eggs in uniformity, but it would not be possible to place much dependence upon the ability of the strain to do this until it had been studied to this end for several generations.

In manufactured breeds, such as the Orpington, Plymouth Rock, Wyandottes, etc., many of the hens produce the whitest of white-shelled eggs, others of a pale tint, and others, again, of a rich brown colour, this tendency clearly showing that the hereditary trait to produce one or other is greatly owing to their complexity of blood.

As selection and preference, even in "made breeds," have definitely fixed every other characteristic—shape, feather-markings, combs, colour of beak and legs, colour of eyes, etc.—there is little difficulty in the way of producing a strain of birds which will lay *dark brown shelled eggs only*.

It will be thoroughly understood that in taking up any given breed, and developing a dark-egg strain from it, the breeder will have really formed a new breed, inasmuch as to preserve this desired quality without fear of reversion, it will be *absolutely necessary* to keep within the strain. An out-cross with foreign blood, even if the stock bird used was bred from a dark-egg strain, would most likely throw a large percentage of pullets which would lay light-coloured eggs. Of course, there would not be the same risk attached to breeding from a bird from another *fixed* dark-egg strain, as from one whose origin was doubtful, though *even crossing two distinct dark-egg strains* would inevitably produce 10 to 20 per cent. of pullets which would

produce light-coloured eggs. With the latter pullets the desired feature may be fixed by mating them with a cock the following year bred from the home dark-egg strain. The pullets thus bred will lay dark-coloured eggs; though, again, if a cockerel bred from this system of mating is used the following year reversion will most likely follow, and some of his pullets lay light-coloured eggs.

It is imperative, if the dark-egg strain is to be perpetuated, that stock birds whose pedigree on both cock and hen's side for at least two generations should be of dark-egg strains. What dependence could be placed upon the stock birds, even if hatched from dark-eggs, unless they were sired by a cock from a dark-egg also?

A breeder owning, for example, hens which lay light-coloured eggs, can, by using a cock bred from a dark-egg strain, change the colour of the eggs laid by the pullets of the second season, but, to fix the desired feature of producing brown eggs, and brown eggs only, from future stock, must use the following year a cock to mate with them of the home dark-egg strain. An out-cross with these pullets, though the latter were bred back and in again to the home blood for *three* generations, would still produce a percentage of pullets which would lay light-coloured eggs, the natural result of the cross being that some of the progeny would resemble in this characteristic trait one or other of their ancestors; so that the breeder who possesses a well-developed dark-egg strain would be most unwise to run the risk attached to the using of stock birds which had no affinity with the home strain. Though, again, a bird which possessed some of the home blood in its composition, *no matter how far removed*, would be of great value in recruiting the flagging energies of a strain, when too much in-bred by breeding for dark-eggs alone, at the same time retaining in the pullets thus bred the ability to produce eggs of an absolutely uniform dark-brown colour.

BUYING AND SELLING EGGS FOR HATCHING.

The great number of eggs sold annually for the purpose of hatching is one of the most important factors in the distribution of Fancy Poultry. It will be found, however, that some of our most prominent breeders firmly decline to sell an egg for this purpose, preferring to build up their reputation on the sale of birds only, the main reason for this action being the oft-repeated carelessness or ignorance of the buyer in handling valuable eggs. At the same time there are often misdealings and dissatisfaction even in the sale of live specimens. The latter may be easily got over, however, by the system of sending "birds on approval," which could scarcely be done with eggs from prize stock. The former are present in entirety, and may be approved of, or otherwise, immediately on arrival, while the eggs have to undergo three weeks of incubation, often under the most unfavourable conditions, before the buyer can be certain of obtaining any results. Of course, the *fertility* or otherwise of the eggs could be discovered after the fifth or sixth day of incubation, but no one living could be positively certain of obtaining chickens until they are hatched; and, again, even when hatched, a period of several months at least must elapse before their value could with any certainty be determined.

These are the principal reasons given by those breeders who sell stock birds only, and without doubt their objections are perfectly sound, when it is taken into consideration the many and various causes likely to interfere with the successful hatching and rearing of the chickens. In a great number of instances the buyer has little or no knowledge of the hatching of eggs or the rearing of chickens, but, being smitten with the "hen fever," finally determines to become a fancier, and writes to all and sundry breeders for their quotations for eggs, and being totally unacquainted with the business, either as to the merits of stock or the value of eggs, naturally expects much more than he is likely to obtain, and if he buys eggs at four or five shillings the setting, it is not to be wondered at. In his ignorance, *eggs from one breeder of a variety, at five shillings, must be equally as good as those at a guinea from another*, though at times (which we confess were rare) eggs purchased at five shillings the setting produced finer stock than those for which eight times the amount was paid. *The rule will hold good in Poultry dealings, that the higher priced eggs are preferable, whether one wants to breed birds up to exhibition points of excellence, for practical purposes solely, or even a combination of both.*

Where eggs have travelled any distance it is well to at once unpack, and allow them to remain undisturbed for at least twenty-four hours before placing them in the Incubator or under a hen. This is not done by many purchasers, we firmly believe, but should *never be neglected*, as the contents of the eggs are considerably disturbed after, perhaps, a rough journey of some hundreds of miles, and the application of heat to them while in this condition too often spells disaster.

The vendor of eggs from prize stock should always have in mind what is expected of him ; and if a beginner, having bought either eggs or birds from some reliable breeder to found his stock, and these birds being fairly good all round, the question at once arises, are his stock birds, from which the eggs are offered, *mated* so as to give satisfaction to the purchaser? Often this is not so. By *chance* they may be mated so as to produce like, but *there is a far greater certainty* that they are not mated with any specific object whatever, and the results are a crop of almost worthless chickens *from good stock* ; and he, through inexperience, *though having sold the eggs in good faith, and perhaps from his very best hens*, will quickly earn a bad reputation.

Where practical knowledge is wanting, it is wise at all times to call in the assistance of someone who has a knowledge of the breed to assist in mating them ; it will always pay to do so. After one object lesson observation and practical experience are the best teachers, and there should be no difficulty the following season in mating the stock to give the highest results.

Again, the packing of the eggs is most important, and should be done in a thorough manner, so that the customer will receive what he has been paying for—not a lot of cracked and broken or badly jarred eggs. Nothing will so effectually damp the ardour of a beginner as to pay a guinea or so for a setting of eggs, and receive a broken box with part of the original contents on the outside, part on the inside, and part somewhere either on the coach or rail, with perhaps a balance of two or three eggs fit to set. Even the vendor's offer of *unfertiles replaced*, rarely heals the breach, and a second repetition would entirely disgust the buyer.

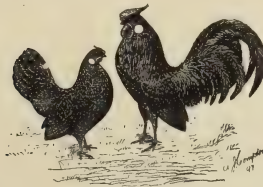
Two points for vendors to always bear in mind are to send out eggs from strong-constituted stock only, and to send them well and carefully packed, thus doing all that is possible towards giving customers perfect satisfaction. This will considerably assist in removing many false impressions as to the *bona fides* of Poultry breeders generally, and if neglected reacts on the whole fraternity. If the vendors make no mistakes as to the quality, fertility, and packing of the eggs, buyers would have fewer complaints to make, and the whole business would in a short time be placed on a much sounder footing than it has hitherto occupied, though there would still be some difficulty in dealing with those purchasers who possess no knowledge whatever of Poultry, but if the foregoing precautions are taken, and the buyer advised *as to the absolute necessity of unpacking, and allowing the eggs to remain undisturbed for 24 hours before setting*, disappointments would be reduced to a minimum.

It will, no doubt, interest our readers, who may wish to preserve eggs, to have the system explained which is followed by those who stock large quantities—viz., the lime method, though at the same time these limed eggs are not as good by any means as fresh eggs, but still good, and possess the advantage of being preserved when cheap, for future use when high or prohibitive in price. To pickle four to five hundred dozen of eggs, take 60 lbs. of the best fresh white lime, 15 lbs. of clean rock salt, two pounds of cream of tartar, and 60 gallons of water, reducing the proportion in accordance with the number of eggs it is desired to preserve. Slake the lime with the water as if for whitewash. After thoroughly slaking, allow it to stand for 24 hours, stirring thoroughly several times. When well settled, dip off the clear liquid, so as not to disturb the lime at the bottom of the cask or tub ; then add the cream of tartar and rock salt to the liquid taken out, and place in another cask, stirring occasionally till all is dissolved. This will then be ready for the eggs. Place them in the liquid carefully until they are about nine or ten inches in height. Then spread over them a cupful of the lime which settled on the bottom of the first tub ; this will be composed of minute particles, which effectually closes the pores in the shells of the eggs. Too much must not be placed on each layer, as it will increase the labour of cleaning them when required for sale or use ; but if you do not allow enough, the pores will not be effectually closed, so that a little too much is better than

insufficient. This performance must be repeated with each successive layer until the cask is full to within four to six inches of the top ; then cover the eggs closely with a cloth, spreading on the top of this about three or four inches of the slaked lime, and always keep the pickle or liquid over the lime. To support the cover of cloth placed on top of the cask, place a few strips of light laths sufficiently strong to bear the weight without sagging down and touching the pickle. A wooden cover should not be used. The cask should be kept in any cool place—that is, where the heat never reaches a higher point than 50 degrees Fahr., as they will not keep in a warm place. It goes without saying that the eggs chosen should be uniformly fresh, and not cracked, as these are almost certain to spoil the whole process.

In some cases, owing to high temperature, etc., the pickle will change colour, the crust which forms on top disappears, and the pickle will work or ferment, and emit a disagreeable odour. This is often caused by broken eggs, dirty casks, or impure water in the first instance, and these should all be guarded against on starting. In such cases the eggs must be taken out, and the pickle renewed. When it is desired to use the eggs for home requirements or market, take them out of the pickle, washing them a few dozen at a time in a tub of clean water, carefully stirring them with the hand, placing them after cleaning in a cool place to dry, rejecting all the cracked or spoiled eggs before packing. If care is exercised in the operation about 5 per cent. will cover the loss.

But where a few eggs, say from 20 to 50 dozen, are required for home consumption, the easiest method, and one which will prove advantageous, is to simply pack them in salt. They may be packed in anything that is clean and handy—barrels, buckets, boxes, etc. Cover the bottom of the receptacle with a layer of salt, three inches thick ; place the eggs on this end upwards, so as not to touch one another, or the sides of the box, etc. Then cover them entirely with salt, repeating the process with successive layers until the box or barrel is full, covering the top layer well with salt. These can be packed away in a cool spot, and will keep in excellent condition, and perfectly good and wholesome for the table, for from five to nine months. The boxes containing the eggs should not be placed in a *damp* spot, as the salt will melt. There is little or no cost attached to this method beyond the first expense of the salt, this being used over and over again as required. The grade of salt required is known as coarse table salt.



cover. Coops to contain one bird in each compartment will be found most effectual, as the chickens by this means obtain ALL the food intended, but, if confined in a coop which contains a dozen or more birds, some are certain to be short of condition just when required, and the plan of a coop for each bird will prevent the birds quarrelling and fighting, this latter would be detrimental to the process of fattening, causing constant excitement at a time when they should be kept as quiet as possible. The coops should not be more than 12 inches in width, the ends and divisions made of galvanized iron, tacked or nailed to wooden frames the required size. The fronts of the coops made of upright wire lengths fixed in a frame of stouter wire, with two lengths of wire across each division, and—see Fig 45—two inches longer on the left side, these can be turned downwards at right angles, and make a good hinge to swing in a socket screwed on to the division,



FIG. 47.—Barred Wooden Bottoms for Fattening Coops.

or wire staples 1 inch in length will answer the same purpose. The upright wires in front are placed two inches apart, and the feeding troughs (see Fig. 46) should be placed on a ledge running the whole length and outside the coops, the birds feeding through the bars. The floor of the coops should be made of wooden bars (see Fig. 47) rounded on the uppermost side and V shaped at the bottom (this will to a great extent prevent the excrement clinging to them), the bars should be placed one inch apart and run end to end along the bottoms of the coops. If made in sections on frames the coops will be found easy to pack away when not required. The walls and sides of the house would answer for the back, and the whole could be fixed together with hooks and eyes, underneath the bottoms of the coops a rough shelf of boards, supported on trestles, is required to catch the excrements. This could be scraped or cleaned as occasion demanded, and should be

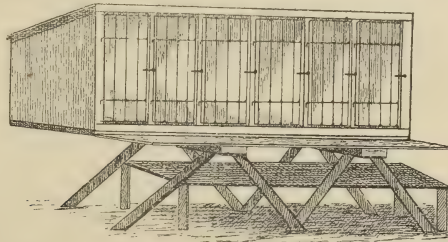


FIG. 48.—Fattening Coops complete, with Movable Table underneath to catch excrements.

placed about a foot below the coop, so as to be easily attended to. The whole of the coops should be placed on trestles 4 feet in height, or on a portable frame bolted together. Fig. complete 48. The larger coops, where it is desired to fatten a number together, could be made on the same plan, but it will be found on trial that the single divisional system of fattening coops will be the best to bring the birds on uniformly and quickly. The system used in France is to keep the birds in coops so small that they cannot turn round, compelling them to remain in the one position. Where cramming is practised this is necessary, but for fattening Poultry suitable for the export trade the single division system, explained in this chapter will suffice. Scrupulous cleanliness must be observed in the fattening pens, as any bird suffering from Vermin is certain to become irritable, besides likely enough infesting the whole lot in the coops. After each batch is fattened

and sent away, a thorough disinfection with lime wash to which has been added a little carbolic acid, will keep down insect pests, and make the coops sweet and clean for the next occupants. Often it will be noticed that some birds on being cooped will refuse to eat, so that it is better before cooping them to omit one meal, they will then in most cases attack food offered them with avidity. The fattening process should not take longer than three weeks; a bird after that time becomes too fat and actually wastes away. Some will be found to fatten much quicker than others, often not requiring more than 14 days to arrive at a perfect state for market.

One of the best foods, and which gives the highest results in fattening, is coarse oatmeal or ground oats mixed with scalding milk or boiling water, buckwheat meal is also of the greatest value for the purpose and should be treated in the same manner as the oatmeal. The food must be mixed into a crumbling mass, not sticky, or wet. In feeding great care must be exercised in regulating the quantity, giving the bird as much as it will eat and no more. Regularity in feeding the birds must be observed, giving three meals per day at equal intervals. A moment's attention given to feeling the crops will be the best guide, if empty, full and plenty is required; if full or partly so, reducing the allowance accordingly, as if overfed, it will cause complications, thus sacrificing time and labour. No food should be left in the trough from one meal to another, soft food turning sour so quickly, and this would be injurious. A little attention given to the cleaning of the feeding trough will be of advantage, a supply of drinking water is provided by giving to each two coops one fountain placed on the ledge outside the coops, which can be easily reached by either of the birds in the adjoining pens, as shown in Fig. 49. Grit of some description must be supplied, a small tin to contain enough for a bird during his incarceration in the fattening coop may be attached to the frame of the coop

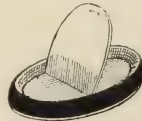


FIG. 49.—Drinking Fountain, to supply two divisions.

divisions within reach. This method of fattening Poultry will be found to answer in most cases, and the attendant will not have a very difficult task in attending to the requirements of a couple of hundred head.

If the practice of cramming the birds is followed, the same system of single coops as given above will be found to answer well, but, in this case it is better to have the coops placed in parallel rows, a sufficient distance apart, to allow the attendant to pass up and down. If cockerels and pullets are being fattened at the same time, they should be prevented from seeing one another. This can be easily arranged by having the cockerels facing each other in the one, the pullets facing each other in the second passage. This would effectually hide them from one another, otherwise the process of fattening will be greatly retarded. The food, if this method of cramming is followed, will require to be made stiff enough to be rolled out, and then cut into pieces a couple of inches in length and rather more than half an inch in width and thickness. The attendant then takes the bird out of the coop, and sitting down should place the bird's legs between his own, the rump and breast of the bird being supported by the attendant's knees, he then placing his right leg over the left will hold the bird securely, then, opening the fowl's beak with the thumb and forefinger, the rest of the hand around the head and neck, with the right hand taking up one of the pieces of food which should be ready, first moistening in water placed at hand, slipping it well down the bird's mouth, the bird will instinctively swallow the food except in rare instances, and this operation is continued until the crop is full; possibly at the first time of feeding the bird will be rather difficult to manage, but after receiving a meal or two in this manner they take it as a matter of course. It is surprising how quickly a number can be fed by one who is expert, and the operation is not difficult to perform. In placing the bird back again in the coop it should be done quietly, by constantly handling them they lose all fear, and it will be found that on the

appearance of the attendant at any time the birds will be found ready and anxious for their meal. In handling the birds they must not be pulled out by the legs, wings or neck, but taken out with both hands around the body in the centre holding them firmly. This will prevent them struggling and will be found the most expeditious when taking them out of the coop or returning.

Machines for fattening fowls by the process of cramming are used where the business operations are conducted on an extensive scale, the "MODUS OPERANDI" being to tuck the bird under the left arm, and held firmly against the attendant's body, opening the beak with the thumb and forefinger of the left hand, and introducing into the bird's mouth by the aid of the right hand, a tube which is connected with a rubber pipe, in turn attached to the receptacle in which the semi-liquid food to be given is stored. A foot lever is attached which on being pressed upon by the foot of the attendant injects the desired quantity of food at a single stroke. In this manner a large number of birds can be fed in an incredibly short space of time, the birds being fed three times per day for a period ranging from two to three weeks, when they are ready for market. Where a great number are undergoing the process of fattening this system will be advantageous. We have seen this in operation and were very much struck with the simplicity attached to the performance. However, the simpler system of feeding the birds in the single coops we have described will answer in many cases, as very little time is required in attendance, and they do not require HANDLING, a certain amount of time being occupied in handling for the cramming process.

We must now proceed to explain the various methods of killing the birds and preparing them for market. In all cases the birds to be killed should not be allowed food or water for at least 12 hours previously, the main reason for this being, that if no food is given for the period stated, the intestines and crop will be quite free of food when the operation takes place. One method of killing the birds is to open the bird's beak, and insert the sharp-pointed blade of a knife through the slit or roof of the mouth, pressing the knife in sufficiently to pierce the brain, or by plucking a few feathers off the neck at the base of the ear, pressing the knife well in, and cutting well open. A third plan is to dislocate the neck of the fowl. This, with practice, is the best plan of all. The bird should be held firmly by the hocks with the left hand, the right hand grasping the head tightly, now by placing the left hand against the left thigh on the outside, and the right hand against the right thigh, also outside, by now widening the distance between the thighs, the head of the fowl being bent backwards, it will slip instantly out of its socket. There is little or no pain attached to the operation, the act being instantaneous, as the spinal cord, main arteries, veins and nerves are divided, the head only being connected with the body by the skin of the neck. When killed, the bird should be hung up by the legs to allow the blood to run into the neck, and to bleed freely. This considerably improves the appearance of the skin. Any one of these methods is preferable to cutting the throat or chopping off the head, which disfigures the carcase.

The birds should be plucked while still warm, as the feathers are removed much easier than if allowed to get cold. When this operation is completed, the wings should be twisted behind the back, the hocks placed together, and the bird placed on its back, with the head and neck hanging down over the edge of a board or table, so that any blood remaining in the carcase may drain into the head and neck. Naturally, plump Fowls do not require any further operation, such as flattening out the breastbone, etc., and, in fact, would be spoiled by the process.

Plucking Poultry.—To pluck Poultry easily and expeditiously, we can recommend the following plan as being absolutely the best: After killing the bird, dip the body in cold water till the feathers are well saturated, then hang up by the legs to drain the water off. Apply half a teacupful of finely powdered resin to the feathers, using a dredging box for the purpose. Then scald in the usual way. The resin causes the feathers and pin-feathers to adhere to each other, the whole being easily and cleanly removed with little trouble.

The common crude resin is the best, and, being very cheap, the cost is made up ten times over by the vast amount of labour saved in the plucking, though where the feathers have some market or domestic value, the resin should not be applied.

Preserving Feathers.—Where feathers are obtained in great quantities, or even when it is desired to utilise for domestic use, the following simple system of *preserving* will be found useful: The wing and tail feathers should be discarded, reserving only those from the neck and body. They should be spread over the floor of a dry room or loft, being well separated, and plenty of air should be allowed to circulate through the room, taking care, however, that the wind is not too strong to blow them about the apartment.

They should be turned over about once a week, or twice if convenient. After becoming fairly dry, and when a sufficient quantity is collected, they should be finally cured by being placed in large paper packages or bags, through which holes have been perforated, to allow the escape of moisture, then placed in a cool oven at night time for a week or so. Where a suitable oven is not at hand, the bags may be hung up in a chimney, or in any dry, sunny, or draughty position, taking precaution that they do not get wet at any time during the period, when, after a month or two, they will be quite ready for use. Feather dealers hang the bags across lines, stretched across the room, leaving all doors and windows open on dry days. Where a large quantity is undergoing the process of curing, this minimises the amount of labour in handling, but is a slower process, though answering equally as well in the end.



FIG. 50.—Table for Caponising.

For local consumption FOWLS do not require to be specially fattened. By being well-fed and allowed free range they will put on flesh rapidly; but if it is desired to get half a dozen ready for a special occasion, housing for a fortnight in a dry, roomy shed, and regularly and liberally supplied with good soft food, such as pollard, buckwheat meal, or coarse oatmeal, mixed with boiling water into a crumbling mass, given three times per day, and supplied with fresh green food and plenty of clean drinking water, the effects of the treatment will be magical.

Touching on the subject of caponising (which, like most innovations, is very slow in progress), very little need be said here, as for Table or Export Poultry a breed of Fowls that would not be ready for market at four to six months old would never pay to rear. Caponising, undoubtedly, has its advantages, such as assisting to provide a LARGER and BETTER table Fowl; but the loss of time occasioned by the bird recovering from the effects of the operation, and the long period required for full development, would not compensate the breeder of chickens who devoted his energies to the production of Fowls that at the age of four to six months would be ready for export, besides requiring an intelligent assistant to become accustomed to the work, which is, without a suspicion of doubt, a most delicate and skilful operation to perform properly, and if not done in a *thoroughly expert* manner much more would be lost than gained. However, although we

have evidence that the operation is extensively carried out to a successful issue in other countries, we much doubt whether it will become popular in Australia, requiring, as it does, the skill of a surgeon to manage successfully. In isolated instances it may be possible, but for the majority of our readers will be found far too complicated and dangerous to undertake.

To those, however, who may feel interested on the question of caponising, we offer the following remarks: The operation is best performed on chickens twelve to fourteen weeks old, although it will succeed if skilfully done with the majority of Fowls up to 12 months old. As with many other operations, this is one that can be learned more readily by seeing the operation performed, and we strongly advise those who would undertake it to procure instruction if at all available. Still, if one is possessed of confidence, success will be met with if the directions here given are faithfully followed. In the first place, a table is needed, in which a few screw rings are inserted at convenient places. These are furnished with broad tapes, by which the bird is securely held during the operation. The best plan a novice can follow is to kill a bird, in order to learn the position of the organs to be removed. Place the dead bird on the table, dispose it as hereafter described, and then place the screw rings where they would be needed to secure a live fowl. One or two tapes will be required to hold the wings, and one for each leg. Six will be all that will ever be necessary. Place the bird upon the table, and fasten it down upon its left side, as shown in Fig. 50,

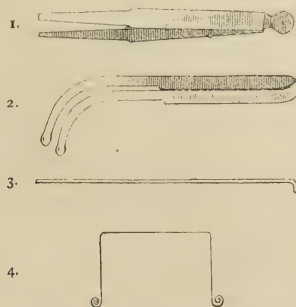


FIG. 51.—Appliances for Caponising.

1—Tweezers. 2—Forceps. 3—Hook. 4—Springhook.

with the rings and tapes as described. The spot where the opening is to be made is shown by the X. Here the feathers are plucked, and an opening is made through the skin with a sharp knife or a pair of sharp-pointed, long-bladed scissors. The skin is drawn to one side, and an opening is made with the knife or scissors between the last two ribs, about $1\frac{1}{2}$ inches in length, great care being taken not to injure the intestines. The ribs are then separated by the spring hooks, so as to expose the inside. The intestines are gently moved out of the way with the handle of a teaspoon, and the glands, or testicles, will be found attached to the back. The tissue which covers them is torn open with the hook, aided by the tweezers. The gland is then grasped with the forceps, and the cord is held by the tweezers. The gland is then twisted off by turning the forceps, and when this has been done the other one is removed in the same way. Care must be taken not to injure the blood vessel which is connected with the organs, as this is the principal source of danger in the operation, and its rupture will have fatal results. The hook is then removed, and if the outside skin has been drawn backward at the outset, it will now slip forward and cover the inner wound which covers the intestines, thus closing the opening. No stitching is needed. A few feathers are drawn together on each side of the opening, and plastered down upon the skin with the blood, where they will dry, and form the best possible covering to the wound, which will begin to heal at once. The bird should be fed

with a little soft bread and milk for three or four days after the operation, but should have plenty of water allowed. For two nights and one day before the operation no food or water should be given to the birds. This will greatly facilitate the work, and reduce the risk of losses. The operation after a few successive trials may be performed in a minute or two, and by the use of the rings and tapes one person can easily perform the operation. Capons may be made to earn their food by fostering young chicks, which they will do admirably. To bring them to their full and most profitable size they should be kept until their second year. By giving them cornmeal steeped in warm milk, and providing comfortable and clean quarters, they will continue growing all through the winter, and the flesh will become very white, sweet, and juicy. A good capon will weigh from 12 to 15 lbs. at 22 months old. Fig. 51 shows appliances used for caponising



CHAPTER X.

POULTRY AS AN ECONOMICAL AND NUTRITIOUS FOOD.

IN treating on the subject of Poultry being one of our most valuable foods, and which should be more widely consumed than at present, we are struck with astonishment at the class of Fowls and Ducks generally sent to our market and offered for sale. With few exceptions, they are decidedly inferior to any other form of animal food, being mere handfuls of feathers, in many instances of uncertain age, and thoroughly impregnated with disease, often being in such a filthy state as to be quite unfit for human food, that it is not to be wondered at people declining to eat Poultry other than that which they produce themselves, or are satisfied that it comes from a reliable source.

The conditions under which they are frequently sent to market is a disgrace to humanity. They are often huddled together in a confined space, and covered with filth; and how can it be expected, when offered for sale under these conditions, that fair or payable results can be obtained?

Unfortunately, our farming community generally, are not sufficiently educated on Poultry matters to combat these disadvantages. There is poor likelihood of Poultry ventures being profitable ones until the business is learnt, and learnt thoroughly; but as, in the majority of instances, Poultry is not considered a profitable class of stock to raise, there is faint hope for improvement until this false impression is removed.

On inspection of many Farms throughout the country, those that are devoted to the raising of grain, green crops, etc., it will be found that little or no attention is given to Poultry, and whether they lay well or not at all, or how they are hatched or reared, and as for thinking that Fowls require housing—no, they are a nuisance, and have to take their own hook and shift for themselves.

In numbers of cases the food they eat is begrudged, the birds being looked upon more in the light of a "necessary evil" than anything else. If asked why they are allowed on the Farm, often the question cannot be answered. If an answer is forthcoming, it will generally run in this wise: "Blowed if I know. I couldn't be bothered with them; they belong to the missus." But it will be found that the eggs laid are by no means despised, and any "unfortunate" young rooster that can possibly develop under the surroundings will be eaten with relish. Poultry being looked upon as a feast reserved for special occasions, this is not as it should be, and shows neglect of opportunity.

On a fair-sized Farm there is nothing easier to raise than a flock of Fowls, whether for egg-production, home table, or market requirements; but the Farmer, having little knowledge of the advantages likely to accrue from looking after Poultry properly, the opportunity to *make them pay* is lost. At the same time they will not give the birds the *slightest* consideration; they are supposed to look after themselves if allowed to remain on the Farm. If this same system were followed in connection with another or all of the products of the Farm, what would be the outcome? Failure on all sides.

There is no doubt that if the ordinary Farmer could be educated to perceive the possible benefits that could and would be derived from breeding Poultry in conjunction with other products, there would soon be a decided improvement noticeable in his pecuniary position. As the market is always open to purchase *good* table Poultry, and pay good prices for *eatable* products, it cannot reasonably be expected that miserable, weedy specimens will be eagerly bought up unless the country was in a state of famine.

As a noticeable fact, coops of Poultry, such as they are, are forwarded to market with the fond hope that there will be a few shillings over and above expenses incurred—profit never enters their minds. This hope is rudely shattered and actual loss is occasioned at times, the birds being almost worthless. This disgusts

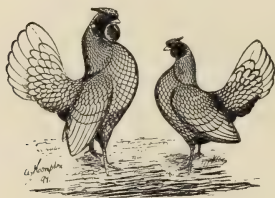
the sender, and strengthens his conviction that Fowls won't pay, and he sacrifices the balance of the Fowls left. In many instances this would be a wise proceeding, as this individual should not under any circumstances keep Poultry; and this would allow another, who devotes a little attention to the production of stock which is *eatable*, to obtain a fair or remunerative price for his skill and labour, which oftentimes is hampered by the spasmodic actions of the former, in glutting the market with inferior stock not worth eating, but which invariably causes prices to remain at a low ebb.

In rare instances there may be seen for sale good specimens of dead Poultry, which, on being priced, will often be found prohibitive to persons of moderate incomes, thus proving that a good article commands a fair price.

As an example, we were informed by a man who *breeds* a class of Fowls that are in all ways suitable for the table—good-framed birds, with plenty of meat on breast, wings, and thighs—that he could always command a remunerative price for every bird he could produce, and frequently he could not supply the demand. This would apply to all who can and will give the question of raising Table Poultry a fair trial.

However, the fact remains that Poultry is consumed in great numbers—good, bad, and mostly indifferent—and if a better class of bird was bred and offered for sale there would be a still greater demand, which would in time assume vast proportions, and cause an enormous amount of cash to circulate which now finds its way into other channels, entirely through the carelessness and neglect of a class of people who will not grasp the opportunity of *augmenting* or *solely* securing their income by an easy, practicable, and profitable method—that of producing eggs and Poultry for export and local requirements.

We have certainly, and with extreme pleasure, noted a slight awakening on this vital question of food supply; and it rests with those who will bring practical knowledge, ordinary intelligence, and study to bear on the subject of raising for market Poultry worthy the name, to carry out to a successful issue the opportunity now patent to all, and verily they will have their reward.



CHAPTER XI.

RELATIVE VALUE OF POINTS OF EXCELLENCE.

POULTRY selected and studied to attain a given object, whether of shape, colour, or peculiar characteristics, has a definite value ; and a knowledge of the rules and principles of breeding, which have been tested and proved by experience to be correct, is indispensable to the young and inexperienced beginner in breeding stock to the standards laid down and known as points of excellence. The standards are in most cases formed by a number of breeders of the particular variety—those who have practical experience, and who are the most qualified to settle or decide what should and what should not be.

The standards are necessarily placed high, for the purpose of encouraging and stimulating the perfection of the breed from the BREEDER'S and EXHIBITOR'S standpoint. Thus, the more difficult it is to obtain a given characteristic in a breed, the more it is valued when approached, and the more "fancy value" is added to that particular specimen. This may or may not be a wise proceeding, but the inexorable laws of custom and fashion state it must be so, and that definitely settles the matter.

Standards for judging Show Poultry must of necessity be more or less arbitrary, but in many instances this arbitrary system has done an amount of harm to many varieties, but, on the other hand, has compensated for this in some measure by making an improvement all round. As an example, take the majority of birds that are now exhibited and compare them with those of the same variety shown as recently as ten years ago. In some isolated instances the breeds have deteriorated, but in the majority have distinctly progressed from the Fancier's standpoint ; others have been "improved" out of all recognition, and in these cases it is but a matter of opinion.

Half the charm of Fancy Poultry-breeding lies in the vain, or nearly vain, efforts to attain perfection. Were this inducement removed, many of the varieties would degenerate, through no other cause than that of there being nothing special to breed for and produce, but this is greatly overdone, and the better plan to pursue to save many of the breeds from being irretrievably ruined would be to draw distinctly defined lines between purely Fancy and Utility Fowls. Thus, a breed in which it is desired "Fancy Points" should predominate could have the standard of excellence placed high, to encourage and develop these points, recognising them as *ornamental qualities*, and not seeking to ruin the more useful points in Utility Fowls for mere exaggerated ideas, while on the other hand, where Utility qualities are the desideratum, the standard could be fixed on that basis, and *Fancy Points* discouraged. This would lead to a distinct division of the existing varieties of Poultry, and would put a stop to the insidious encroachments taking place. Some few years back Minorcas were considered to be the best laying breed known, but the craze for immense comb and other "Fancy Points" is slowly and surely destroying their main virtue—that of egg-producers. Again, in the Barred Plymouth Rock, also, unwieldy size and accurate markings of feather are fostered, with detriment to the breed's generally useful properties—that which the Plymouth Rock was produced for. And so in the Brahma, a useful and valuable Fowl until exaggerated points of excellence, framed and laid down, and being bred to, have injured the reputation of the breed, and in consequence there are few who will keep them. Possibly the Show craze may be blamed for a great portion of this unfortunate state of affairs, but it seems a pity that the good and useful qualities of the various breeds should be sacrificed for the one object. One way to obviate the difficulty would be to have prizes allotted at each Show for UTILITY birds and for SHOW specimens, providing separate classes, and having standards for each. Then the outside Public would be able to purchase Pure-bred Poultry, suitable for either Show or Utility purposes. As it now stands much dissatisfaction is caused, and a very unsatisfactory state of affairs occasioned, by a purchaser buying Plymouth Rocks, for instance, hearing that they were good Fowls for general purposes ; and, on purchasing

SHOW specimens at a long figure, discovers that they are in no way suitable for his requirements, being deficient in those qualities for which they were purchased. Many more persons would keep Pure-bred Poultry, and the whole business would receive a fillip. The production of high-class Show specimens would in no way be checked. The competition between one Fancier and another would obviate this, and the whole Poultry world would be placed on a sounder basis than it now occupies.

As an example of the effects of a "standard of excellence" for the encouragement of purely "Fancy Points," we have before our eyes the transmogrification the British Game Fowl has undergone, and is still being carried further, and we regret to see the Australian Game Fowl following closely in the wake. None but an enthusiastic admirer of the breed—that is, one who looks to obtain "Fancy Points"—would attempt to state that the modern production is a BETTER BIRD than his predecessor. One can admire the modern Fowl from a purely FANCY standpoint, but not from a UTILITY one. This will illustrate how the DIFFERENCE in all varieties of Poultry should be defined, and it will be found that any Poultry Society having the courage to tackle the matter as it should be done, would confer a lasting benefit on thousands who would take up *Pure-bred Utility Fowls*, but are deterred by the circumstances and surroundings from investing in Show Poultry, as they are generally totally unsuited to their requirements. A better class of Poultry would then take the place of many of the nondescripts now seen, and in a short time those who devoted their time to improving the UTILITY Points, instead of, in many instances, USELESS FANCY Points—except from a Fancier's standpoint—would reap a rich harvest.

Our suggestions will probably be ridiculed by many who breed SHOW Poultry. They will state: "Oh! we can produce any amount of INFERIOR birds from our very best Show stock." Yes, we admit that this is frequently the case in breeding FANCY birds—that a majority will be found useless for the Show-pen by being faulty in plumage, bad combs, ear-lobes, eyes, legs, etc., but as the two breeds (for such they would be) are distinctly apart, the standards of form, etc., differing so widely, their WEEDS, to use the parlance to express birds deficient in SHOW POINTS, would not be built on the same lines as birds bred for UTILITY POINTS, therefore are of no value for the SHOW-PEN on FANCY POINTS, and would be useless for the SHOW-PEN as UTILITY SPECIMENS.

To still further demonstrate our argument, there are some breeds, taking, for instance, the Orpington, a breed originally produced for a specific object, that of fair laying powers (more especially in winter), and fair table qualifications. In their original form they embodied these qualities; but, with the eternal craze for improvement and working to an imaginary standard, now appear frequently as long-legged birds approaching the modern Langshan type, and win in the Show-pen. We are aware that the Langshan was used in their composition, but why breed to that type, as in the Orpington the best qualities of the Langshan were embodied? But the eternal craze for alteration and improvement (save the mark!) is already beginning to change the bird for the worse, the fancy points now being given more consideration than its useful qualities. Again, the Langshan Fowl takes various forms, its supporters holding widely different views. This tends to sacrifice some of the breed's good qualities. In some instances length of limb and closeness of feather are the points aimed at, and it is difficult to see where this will end unless some encouragement is offered to the cultivation of the *most useful qualities* of the breed, which none but a breeder for "FANCY POINTS" would dispute, would be a step in the right direction. By all means let those who value a bird for possessing exaggerated points difficult to obtain prosecute their object with all ardour, but at the same time let others have the same amount of encouragement who prefer to breed a Fowl for its useful qualifications.

Taking another example, that of the Cornish-Indian Game Fowl, we find this breed was perfected to an ideal standard of table qualifications. What do we now see in the Show-pen? Birds small and weedy, everything being sacrificed to colour, comb, and markings. Many of the birds exhibited would require a stretch of imagination to be considered TABLE FOWLS, but would pass for rather large and prettily-marked Bantams.

The Show pen has this serious charge to answer for, and no likelihood of improvement in their main quality, that of TABLE FOWLS, pure and simple, will be noticeable, until there is a limit fixed to the

ridiculous and inexorable demands of the Show pen. We read of the Indian Game Fowl being suggested as an excellent cross to improve the waning size of the Malay (thank goodness, the Malay has not been improved to such a degree that its chief virtues are sunk for FANCY POINTS). It would now be nearer the mark to go to the fountain head at once, and use the Malay to increase the size and table qualifications of the Show Cornish Indian Game Fowl, which are gradually being sacrificed for purely ornamental Points of excellence.

To many of our readers our suggestions may appear too advanced; but the next ten years will tell a different tale, as the purchasing public now are awakening to the fact that purely FANCY FOWLS have their merits in giving opportunity to exhibitors to individually distinguish themselves in perfecting by selection and preference "FANCY POINTS," but which for their purpose are best left alone.

The changeable decisions of Judges have also much to answer for, in many instances individual Judges fostering and encouraging points which are detrimental to the best interests of the breed, standards being quite ignored, and individual opinion substituted, which, of necessity, must be wrong. To illustrate this, a bird may win under a certain Judge at one Show, the same bird meeting the same competitors at the following Show under another Judge, who reverses the decision of the first one. This is a stumbling block difficult to remove under existing circumstances, one Judge, perhaps, basing the bird's excellence on Utility Points, and the other on Fancy Points. As the matter now stands, the awards at our Shows, in numerous instances, are no guide to the relative merits of the birds, but are, as remarked previously, merely individual opinion. This is most discouraging, a breeder often devoting years of study in perfecting his specimens to the Standards laid down for his guidance, the Judge, however, placing quite a different interpretation on the same Standard, or throwing it altogether on one side, awards the prize to his own special Fancy.

At most of our large Shows separate classes are provided for adult specimens and young stock respectively of the different breeds, and what can be often noticed? Birds of totally different types and colour heading their respective classes. To a keen observer the example is so forcible that the remark is frequently made, "Which of these is correct?" Both cannot be. This has a tendency to hamper considerably the entrance of many new Fanciers to the ranks of Pure-bred Poultry breeders and exhibitors, and the only open and legitimate method to do away with this unfortunate system is to have separate classes for each breed, recognising them either as purely FANCY FOWLS of THAT BREED, or UTILITY SPECIMENS. Thus the relative value of the Points of excellence would be of some intrinsic worth, which, unfortunately, under existing conditions, cannot honestly be said, there being far too much encouragement given to Fancy Points in some breeds (which are considered as Utility Fowls), causing the salient features to be more or less sacrificed, with the natural consequence that they have ceased to be *useful* specimens of Poultry, and are ORNAMENTAL only in the eyes of those who have IMPROVED them.

The Points of excellence or perfection, which are given in the Standards issued, are invariably drawn up for the specific objects of improving and definitely fixing markings of the feathers, shape, colour, etc., the Utility qualities never in a single instance being considered, and the Standards of feather markings of breeds, other than those of wholly self-coloured breeds, are so arranged that it is impossible to breed birds of both sexes from the one pen of birds that will approach the ideal standard of excellence laid down for male and female, and to combat this it is compulsory to mate up distinct breeding pens to produce Cockerels and Pullets respectively. This is a matter for regret, as frequently a Cockerel of a given breed—for instance, a Brown Leghorn—though being nearly perfect according to the Standard for Cockerels, and a Pullet of the same variety, being equally as excellent in the Standard requirements for the Pullets, are really so opposite in their compositions, that if mated together (though both being nearly ideally perfect), would not produce chickens approaching either parent in the FANCY POINTS for which they were bred. By this system of breeding the sexes from different pens, and which it is compulsory to follow to attain perfection, or anything approaching it, in their respective classes, the birds become almost distinct varieties. As an example of our meaning, the Standard requires the Brown Leghorn Cockerel to be perfectly *black* in breast and underparts, and as *bright* in top colour as possible. Pullets bred from this bird would invariably fail in breast colour,

washy in hackle, and ruddy or rusty winged, and for Show purposes in their class would be useless ; whereas, another Cockerel having *broken* feathers in the breast, *dark* in top colour, and *heavily streaked* in hackle, would breed pullets that fill all the requirements of the Show pen, though this same Cockerel would not have the remotest chance of scoring in the Show pen. Under the existing circumstances, it is necessary to have distinct breeding pens for each sex, proving that the standard of excellence must be more or less erroneous, and productive of evil results, by producing each year a vast number of birds that have nothing in common, though falsely recognised as being of one breed. How much better it would be to breed BOTH sexes from the same parents, and what an amount of benefit it would confer on the breeder, by being able to adopt this method. It would increase the intrinsic worth of the birds to an enormous extent, and would preserve the important advantage of uniformity of type, and tend to encourage the ardour of beginners by avoiding the extreme disappointment which follows. In order to prevent this unsatisfactory state of affairs, the existing Standards for most breeds would require modifying ; but time would prove that the alterations made would have a salutary effect in encouraging young Fanciers, and remove many of the existing obstacles now in their path.

How frequently it will be noticed that a breeder of any given variety is always successful in breeding winning Cockerels, but rarely wins with Pullets of the same breed ; and again, another breeder is successful in breeding Pullets, but cannot produce Cockerels fit to win. Each forms a strain for breeding the sex he is successful with, and if the two almost perfect specimens of the so-called ONE BREED are mated together, the progeny will be inferior to either parent, showing clearly that the value of Points of excellence laid down for each sex can only be estimated or accepted as a guide from a FANCY standpoint, and the good and useful qualities, those that are worth fostering to a great degree, are necessarily sacrificed.

Again, if " FANCY POINTS " only are considered to be the main reason why birds are kept for Exhibition, why not breed Bantams of each and every variety, which would allow full scope to the seeker after *ornamental* adornments, to exercise his skill as a breeder in fixing and perfecting any desired Point of excellence, which would, in the end, be of some good and lasting benefit, by preventing the deterioration of some of the best and most useful Poultry in Utility qualities. Thus the Standards of excellence for Fancy Points could be without limit, and be of some value, which at present is very questionable.

Again, the purchaser of high-priced eggs or breeding stock has a just cause for complaint against the breeder of high-class Poultry, who conveniently, and almost without exception, when advertising, manages to make no mention whatever of the birds' practical or Utility qualities. It is, of course, very gratifying to the breeder and advertiser to give *in extenso* the wonderful successes that his birds have gained at the different Shows ; but the majority of purchasers would prefer a little information, either as to the egg productive capabilities or table qualifications of the birds offered for sale. For instance, the man who works a practical Market Poultry Farm would strongly object to purchasing a first prize winning Cockerel, that had been bred from a strain in which the practical qualities had been sacrificed for Fancy Points, in all cases preferring to purchase a bird from a utility strain that, in all probability, would not have the slightest chance of scoring even a commended card in the Show pen. The latter bird, though deficient in Fancy Points, would possess the power of transmitting to the offspring increased practical qualities, and, therefore, superior results would be obtained from a so-called inferior bird ; and when the breeders of high-class Poultry breed their stock on the Utility basis, to foster and encourage the practical qualities, then, and then only will their business become profitable. It will be noticed that numbers of young Fanciers retire within a short while from the ranks of Exhibition Poultry Breeders, quickly discovering that Utility Fowls are the only description of Poultry that can be made pay. This is caused by the breeders for Show purposes giving no attention whatever to the egg-developing and meat-producing qualities of their Fowls, sacrificing all this for abnormal development, either of comb, lobe, feather, etc. (which stands to reason cannot be an unmixed good), with the unfortunate result that many of the best Utility breeds of Poultry are being gradually destroyed, in order to secure and fix exaggerated Fancy Points.

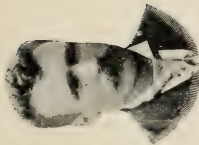
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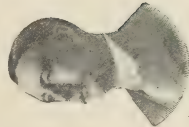
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CHAPTER XII.

FORMING A RELIABLE STRAIN.

THIS Chapter will only be of interest to the Fanciers in embryo of Show or high-class specimens of Poultry. There is no information contained on Utility matters, as the system adopted in breeding the former, applied to the latter would court disaster. Granting that the beginner has definitely made up his mind as to which breed he intends to keep, and the colour of the variety, that he has studied the breed for some time, and gained some practical knowledge of the management of Poultry, and also banished from his mind the thought that he can purchase Champion or Cup winners for a few shillings, the easiest course to pursue is to approach a breeder of the variety, and purchase a breeding pen of birds from the one yard if quick results are desired; but if it is not wished that high results should come so sudden, and the beginner would like to have the honour of forming a strain of his own, which would in time, with due exercise of careful selection, produce birds that would take high honours in the Show pen, the best course then is to purchase a Cockerel of some well-known strain, and a couple of hens from another breeder. This latter plan is the best to follow, as the birds are not as likely to be in-bred, and this would give the breeder a better start in carrying out his object. The third plan is to purchase a sitting of eggs; but this can scarcely be recommended, as breeders in very rare instances sell eggs from their best birds, and if the beginner has a little patience, the second system will be found the best to adopt, as in this case the birds would, no doubt, be totally unrelated to one another. Great care must be exercised in noting that the birds are not suffering from any disease, or that they have no really glaring faults, such as crooked breasts, wry tails, duck feet, etc.; *minor faults in plumage will not be of such importance*, the hints we intend giving will "breed those out," if the mating of the stock each year is weighed well towards banishing the defects.

Let us suppose that the breeder possesses a cock and hen to start with, and that they are totally unrelated to each other, and have no glaring faults such as we have described, though, perhaps, are only moderate specimens of the breed—the cock being purchased from Jones, and the hen from Brown, these being mated together, and all the eggs laid during the season being set. On the chickens arriving at maturity, possibly, it will be found that not a single bird produced is any improvement on either parent, but, probably inferior. This must not discourage the breeder, being but the natural laws of reversion at work, and, to combat the difficulty, the system we intend giving, will be found the best to adopt. The best Cockerel must be chosen, and mated with the Brown Hen. From this cross a Cockerel must again be chosen, and mated again with the Brown Hen.

The Jones Cock should be mated with the best Pullets from the first year's breeding, again being mated with the best Pullets from this cross the following year.

The stock bred the first year will be composed of one-half the blood of Jones and one-half the blood of Brown, and a Cockerel of this cross being mated with the Brown Hen, the progeny would be one-quarter Jones and three-quarters Brown, and repeating again the following year with a Cockerel thus bred, will give progeny composed of one-eighth Jones and seven-eighths Brown blood.

By carrying out a similar system on the Cock side, we have progeny the first year that are one-half Jones and one-half Brown. The following year the stock would be three-quarters Jones and one-quarter Brown blood; and again repeating the following year, will give progeny composed of seven-eighths Jones and one-eighth Brown blood.

This will provide the breeder with a number of birds, which are seven-eighths Jones blood and one-eighth Brown, and a number which are seven-eighths Brown and one-eighth Jones blood, and also some

birds of the previous year, which are three-fourths Jones and one-fourth Brown, and also others of the same year, which are three-fourths Brown and one-fourth Jones.

The system thus far is easy, and the method to adopt is to mate a Cock which is three-fourths Jones and one-fourth Brown with Pullets one-eighth Jones and seven-eighths Brown, making up a second breeding pen with a Cockerel which is seven-eighths Brown and one-eighth Jones with Hens that are three-fourths Jones and one-fourth Brown. For a third breeding pen, a Cockerel seven-eighths Jones and one-eighth Brown can be mated with Hens three-fourths Brown and one-fourth Jones; and for a fourth breeding pen, a Cock which is one-fourth Jones and three-fourths Brown with Pullets which are seven-eighths Jones and one-eighth Brown. This will produce stock which can be mated one with the other, keeping them as far apart in blood as possible, mating birds two years old and over with young stock, and only selecting as breeding stock the most vigorous and healthy specimens, which combine the qualities which the breeder is aiming at. The birds breeding would require a pedigree table to be kept, and each year's stock would require to be marked, so as to distinguish them. This can easily be done by perforating small holes through the web of the foot or the web of the wing, using a red-hot needle for the purpose. There is very little pain attached to the operation, and no disfigurement whatever to the bird's appearance.

If any care has been exercised in selecting and mating the stock to perfect given points, the results should be very high, and more than this, the breeder will have formed a strain which can be depended upon to breed true, and not sport, as long as foreign blood is not introduced.

We give these directions to be taken as general principles, not as hard-and-fast rules to be adhered to under all circumstances. Possibly, the progeny of the first cross inherited some glaring and conspicuous fault which was not patent in their ancestors. In this case a bird may be selected in another yard, and introduced to eradicate or counteract the fault. One thing the breeder must definitely do—that is, make up his mind as to what point or points he is aiming at, and select each year for his breeding stock those birds which are the nearest approach to the desired qualities.

There are certain rules in breeding high-class stock, and the knowledge of these are indispensable to the beginner—for instance, how to obtain size. In this quality experience has proved that the hen has the greatest influence, and that a small hen will not produce large chickens in anything like the proportion desired by the Fancy Poultry breeder (in breeding Bantams, however, the *smaller* the hen is the better). Although the hen exercises the most influence over the size of the progeny, the cock has also some influence in this respect; but, if it is compulsory to breed from a small bird on one side, *let that bird be the cock*. The hen also influences build and shape, but this does not affect the cockerels bred as much as the pullets, as the chickens have a tendency to inherit the shape and build of their ancestors of the same sex in a modified form, and a skilled breeder can turn this to good account.

In points of colour the hen in some instances possesses the greatest influence, but in other points outside of size and structure the cock has by far the most, and it would require a hen possessing extraordinary excellence in these points to remedy any defect in that point or points in the cock. Thus, taking the comb for instance, a cock faulty in comb would not produce progeny (either cockerels or pullets) that were not defective, no matter how good the hen was in this respect; but a hen with an imperfect or inferior comb can be bred from with fair results, providing the cock excels in this point.

The same results will also be obtained in breeding for leg-feathering, tail, hackle, or ear-lobe. The cock must be good in these points, or none of the progeny will be. The hen may be deficient, but if the cock excels in these features some of the chickens will be correct.

This is accounted for in many ways. Artificial selection has produced and fixed to a certain degree the Fancy Points, but which are difficult to retain if foreign blood is introduced, having a strong tendency to revert back to remote ancestors. To illustrate this, a cock may be in-bred to a great extent, and possess in a marked degree the prepotency to stamp certain characteristics on the progeny; and a hen of quite a different *strain* of the same *variety* may be bred to an equal standard of excellence as the cock. These, on being mated, will invariably "throw back," as it is called; and the stock thus bred will in nearly all instances be

inferior to either, and, to bring back the Fancy Points thus lost, in-breeding must be resorted to. Another matter of importance in breeding high-class Fowls, and which cannot be too strongly insisted upon, is that, if a given bird is defective in any important point, this bird should not be in-bred to, but if, on the other hand, of great excellence, should be made the most use of. As an example, it would not be wise to in-breed to a Hamburg cock which had a bad comb and ear-lobes, as the stock so bred would be even worse in these two points, but it would be advantageous to in-breed to another Hamburg cock which excelled in comb and lobes, and a bird possessing these qualities should be used as largely as possible, so as to definitely fix these good and important features in a strain. In forming a strain the healthiest and most vigorous birds should invariably be selected, and the age of the birds must always be considered in mating them. Cockerels and pullets, that is, birds under twelve months old, should not be mated together unless there is no other resource. The better plan is to mate cockerels and pullets with birds two years and over. Stock so bred are much more vigorous and easier to rear, and as, in forming a strain of high-class Show Poultry, there should always be on hand sufficient birds left over from the year or two previous, no difficulty would arise.

If it is found that birds of a previous year mate well together, and the stock from them is of proved excellence, they should be bred together as long as possible. The stock thus bred will prove of the greatest value for further operations, as the points in birds so bred are more firmly fixed than in stock bred from birds which only throw a small percentage of good chickens.

As remarked previously, purchasing eggs for the purpose of forming a reliable strain (except in rare instances) is not a wise proceeding, as with high-class stock the eggs are not likely to be as fertile as ordinary eggs, and the selection, even if half are reared, is very small, besides compelling the breeder to use young stock on both sides, which we have shown is an unwise system to pursue. When the purse will allow, a good plan is to purchase a sitting of eggs from one or other of the yards from which the stock birds were obtained. By this means a couple of young birds may be reared which will be useful to cross back and in again, but it will be found that the advice we have given previously—to breed as many chickens as possible the first year—will give ample opportunity to proceed, without recourse to fresh blood. It will be noticed that the young stock differ to a great extent in their growing stages, and careful observation will soon teach the beginner the intricacies of breeding and selecting his stock for future operations.

It will be well for the breeder to confine himself on starting to *one colour of one variety*, until he has fairly well mastered the principal characteristics of the variety he has in hand. By keeping too *many colours* of one variety, the minor and finer differences will often escape his notice, and neglect of the latter will effectually prevent the birds reaching the standard desired. In crossing the colours in some varieties it is almost a fine art, but the beginner should not attempt this; the whole strain may be ruined, as far as being relied upon for like to produce like, by one injudicious cross. Many are quicker and keener than others in noting the desired qualities in Poultry—those points which make the birds valuable from an Exhibition point of view, or valueless for the same purpose. Others are slower, and cannot grasp this so quickly, with the consequence that they are some years in reaching the standard of excellence already passed by their competitors, but still there is room for all. Each likes to win, but a man or woman ceases to become a “Fancier” when either cannot take a beating in the Show-pen. With the advice here given and followed out, any person has the opportunity to excel with any breed, providing he or she *makes that breed or variety a speciality*.

CHAPTER XIII.

GUIDE FOR MATING AND BREEDING EXHIBITION POULTRY.

THE selection and mating of high-class Poultry to produce Show winners or stock of great excellence require a vast amount of knowledge and skill, and the more complete manner in which this is carried out rules the result of the season's chickens. The ultimate profit or loss in the season's breeding often hinges on the day of selecting and mating the adult stock. Experience has proved unquestionably that unknown birds (of doubtful and unknown pedigree) are of little or no value for the breeding-pen, because they cannot be depended upon to transmit their good points to their progeny. At times it is occasionally noticed a fine bird or two may be produced from birds whose origin is obscure, but at the same time it is folly to expect satisfactory results generally from birds picked up haphazard and mated with one another.

In breeding Exhibition Poultry, there is scarcely another single subject upon which opinions differ to such a remarkable extent. Many breeders have succeeded in producing birds of great excellence by pursuing widely different methods, but the rule will hold good that in-breeding must be resorted to in a more or less degree *if uniformity in the progeny is desired*. This is caused by the system of *artificial selection*, i.e., the arbitrary fixing by man of certain points and characteristics which he desires to perpetuate, being diametrically opposed to the system of *natural selection* which all of the feathered tribes in a state of nature follow. Birds, and animals in their natural state, select their mates partly on account of their superior strength, etc., and partly on account of possessing certain beauties to the eye. In addition to this *survival of the fittest* is carried out in its entirety; the weak or deformed of each brood die, and those in which the plumage is less adapted for concealment from their natural enemies fall a prey to the latter. By this natural course the vigor of the race is kept up to a high standard, and the particular type and plumage are perpetuated for all time; but, by the system of artificial selection being entirely different, the points sought to be gained are more or less difficult to retain, continually reverting back to some remote ancestor, and this must be counteracted by in-breeding. This latter consists in mating birds to one another which possess in *some degree the same blood*. No matter how distantly apart, it is still *in-breeding* if the stock birds are descended from one common ancestor. All successful breeders of Show birds know well what reversion will do with their stock if crossed, and this is kept well in mind when it is necessary for them to procure fresh blood to increase the vigor of their stock. As an instance of our meaning, the original Brahmas were of a mixed grey colour, and the two colours now known as Lights and Darks are descended from the one source. The extreme points and characteristic markings in each have been perpetuated by *artificial selection*. The accurate markings of the Dark hens has been studied and fixed entirely by selection and preference; and if a Dark hen, herself being accurately pencilled, is mated with a cock of the same variety excelling in every point, but *totally unrelated to the hen*, the pencilling on the pullets so bred would be almost lost, the chickens in nearly every instance turning out a mixed grey colour, like the original Brahma. A very small proportion of the pullets may exhibit fair pencilling, but for Show purposes would not be of great value. This statement may be denied by some breeders as being incorrect, but if the pedigree of the birds is turned up it will be found that if any success has attended the crossing that the birds bred together were related in some degree. The Fancy Points of a breed run great risk of being entirely lost if fresh blood (by this we mean totally unrelated stock) is introduced, the Fancy Points being the result of artificial selection, though there are some points considered as Fancy Points which have been in existence and perpetuated for centuries; these are not so liable to be lost if fresh blood is introduced. Many beginners,

in contemplating the purchase of stock birds of a variety, make a stipulation that the birds must in no way be related to each other, believing that in-breeding is fatal to success. This is, no doubt, based on the generally accepted theory that in-breeding is of itself injurious, and is productive of the most evil results. This is entirely founded upon the ignorance of the actual facts regarding Show or Exhibition Poultry. The majority of the breeds as at present known are the decided results of artificial selection, the latter course being followed in most breeds and varieties for a great length of time; for instance, the Exhibition bird of nearly every variety is of quite a different type to its ancestors of a former period. Certain characteristic points which are now recognised as points of excellence in the breed have been strongly developed by artificial selection, and as long as the parent birds are composed of members of the same family (no matter how far apart in actual blood relationship) these points, which have been created artificially, will continue to exhibit themselves, and the more in-bred the stock is from birds which possessed the characteristic points, the more definitely will the points become fixed in the progeny. Immediately foreign or alien blood is introduced these same points will in part, or wholly, be lost, owing solely to the natural tendency to reversion. At the same time, possibly, one or other of the parent birds may possess extraordinary powers of protence, and some of the stock bred may be good in the fixed points; but it will be found that the stock thus bred, though, perhaps, being fairly good themselves, will be worthless to perpetuate the desired points of the breed, being lacking in protency.

The "Fancier," that is, one who breeds stock to an ideal standard of excellence, and for the purpose of Exhibition, places little value upon the egg-producing and table qualities of the birds. The more difficult it is for him to attain perfection or anything approaching it in Fancy Points, the more fascinating the object becomes, and for his purpose in-breed ing in some measure is compulsory.

By following out the system of in-breeding (we do not mean the mating of brothers and sisters together, though this is often preferable to introducing alien blood), mating the stock each year as far apart as possible, the very highest results will be obtained, and when once a strain of Fowls is thoroughly well established and bred to a high standard of excellence, the introduction of entirely fresh blood becomes a serious question. An excellent plan, when fresh blood is urgently required, is to procure a bird from some one to whom you have disposed of some of your stock in previous years. By this means you may, comparatively speaking, obtain fresh blood which will counteract the tendency to reversion certain to arise if the bird has *none* of the home blood in its composition.

Again, an axiom that should never be neglected when selecting birds to mate for the season's breeding, is to choose birds whose comparative faults or failings will counteract one another, as, if two birds are mated together which both possess the same glaring faults, the progeny so bred will be inferior to either, as, on the same principle as selecting birds to perfect given points desired, the obvious result, if this is neglected, is to aggravate or increase the faults. Moreover, the beginner must always bear in mind that the progeny of a breeding pen of birds has an equal tendency to resemble their more remote ancestors as their parents, and this may to a great extent vary the successful results of a well-matched and selected team of breeding birds, so that, to look forward to the progeny turning out good in the desired qualifications, the pedigree of their ancestors should be well studied. For instance, a bird may with fair results be bred from, even if defective in any given point in which the stock from which it is bred is excellent, whereas another bird failing in the same degree, and being bred from a strain of birds whose whole family were defective, would court disaster. Even in the first instance, a bird of exceptional merit in a point in which the strain from which it is bred is defective, could not with reason be expected to produce much improvement in the offspring until in-and-in breeding had been resorted to, so as to firmly establish the quality without fear of reversion.

A great deal of experience is necessary before a team of birds can be selected to mate together, the cock first being chosen, and the hens to accompany him require to be carefully and thoroughly examined point by point. Any one fault in the cock requires those hens to be chosen which excel where the cock is deficient, otherwise the progeny will have the fault aggravated to a greater degree, as it is positively astonishing to note

the length of time that latent characteristics or hereditary peculiarities of form and plumage will lie dormant in a strain, which, when crossed, will immediately show themselves ; this often upsets the calculations of breeders, and the positive conclusions are obvious, and should explode the fallacy generally accepted by beginners that it is absolutely necessary to introduce fresh blood each year into a strain. Nothing would be so unwise, and, failing being able to obtain a superior bird which excelled in desired qualities, we would not shrink from using a decidedly inferior specimen of the same blood for our future operations, much better results being likely to accrue from a bird which was bred from a good strain than from one which was likely enough in appearance, but doubtfully or carelessly bred.

If care is exercised at the outset in starting a strain with perfectly unrelated birds, *and keeping the pedigrees of the chickens bred each year for reference*, it will only be in isolated instances that fresh blood will be needed to increase the vigour of the strain, carefully and systematically mating each year *birds which are not too closely related* will minimise the possibility of it being compulsory to introduce foreign blood.

Though in-breeding may at times be productive of evil results, for all practical purposes in thoroughly establishing a strain it is a necessity, and as the enthusiastic Fancier seeks to attain or approach the ideal of perfection in the breed in which he is interested, the adoption of the system of in-breeding is compulsory to attain success.

A practical acquaintance with the breeding of Show Poultry quickly teaches the Fancier that absolute perfection in any breed is an utter impossibility (though appearing to the outsider as scarcely worth attention), there being so many standard points, all of which required to be cultivated, that it is an almost hopeless task to breed a bird which combines in perfection ALL the standard requirements.

Another question much easier asked than answered is, "How many hens should be allowed to run with each cock?" This greatly depends upon the season of the year, the size of the run, the particular breed kept, the age and vigour of the birds, so is extremely difficult to answer with certainty. However, it is a question of more than ordinary importance, so much resting upon the result.

In the early part of the season, say for the July and August chickens, it is best to allow two hens to the cock in the heavy, and three or four to the lighter and more active breeds ; as the season becomes warmer, the number may be doubled. But should the stock cock be very old, or in a very limited run, better results will be obtained by fewer hens or pullets ; and, on the other hand, a very vigorous cock or cockerel will require a greater number of hens, or those with him will have their plumage destroyed, and the eggs will not be as fertile ; and if in a confined run, the vitality of the stock will be interfered with, but if on an unlimited run will be increased, so that in mating up the breeding pens surroundings and circumstances must be taken into consideration, and the number of hens allowed increased or decreased accordingly. For breeding high-class Poultry, even if the birds have an unlimited run, and the cock very vigorous, we would not recommend more than 10 to 12 hens to one cock, the best results being obtained from these numbers.

Bearing in mind that crossing totally unrelated birds, almost without exception, will result in the production of progeny which fail in Fancy Points, it becomes apparent that it would be imprudent to introduce an alien cross into the breeding yards. To purchase a cockerel bred from a quite distinct strain, and mate him with the best hens in the yard, would almost of a certainty be a deliberate and useless waste of the season's chances of producing high-class chickens, and it will be found quite sufficient for recruiting the energies of a strain if the birds used as a cross are composed of one-half fresh blood. This cross can be easily introduced by obtaining a hen or pullet from a different strain, mating her with one of the best cocks of the home strain, and selecting stock bred from this cross those most suitable for supplying the required fresh blood. The birds so bred and selected may be relied upon (even if they are defective in some points) to do very little if any injury to the strain, and will generally produce a good proportion of high-class chickens, and to still carry this further the hen purchased could be in-bred too, and another supply of comparatively fresh blood be secured for further operations.

In selecting a bird to cross into a strain, one should be chosen which excelled in one or more points in which the home strain may be slightly deficient, and even if developed to an exaggerated degree in these points so much the better.

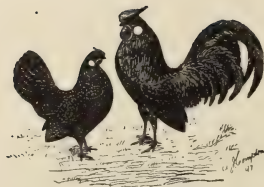
Once that the birds in the breeding pens have been properly mated, they should not be interfered with, such as by introducing a strange hen, as this leads to discord and disappointment. This should be avoided, as to obtain anything like a fair percentage of healthy vigorous chickens immunity from interruption should be secured. Birds once selected for the breeding pen should never, under any circumstances, be sent to Shows, this often disarranging their systems for some time after, and it is futile to expect fair results from birds so upset. The higher the state of health and vigor of the brood stock the more vigorous and creditable will their chickens turn out, and as these considerations are most weighty, should always be borne in mind by the would-be breeder and exhibitor of high-class Poultry.

BREEDING FOR COLOUR POINTS.

To produce specimens of any breed right up to the highest standard of excellence in colour points it is absolutely essential to fully understand how to mate them properly, though to breed wholly black or white fowls does not offer such obstacles as breeding those in which three or more colours are in combination. In the production of parti-coloured plumage in Poultry, Nature utilises at least five colours—red, black, yellow, blue, and white, though the last mentioned can scarcely be classed as a colour, being actually an *absence* of pigment colour, which is productive of albinism, so need not be taken into consideration in tracing back the progenitors of our present-day Poultry. The primary colours chiefly found are black and red, and the secondary colours blue and yellow. The former exist in themselves, the latter being produced by a combination of two or more primary colours. Blue, for instance, as in the ground colour of the Andalusian, or Bared Plymouth Rock, being a combination of black and white, and yellow or buff a combination of white and red, so that in fowls in which the colours are black and red, as in the Game Fowl (black-breasted red), Brown Leghorn, and Partridge Cochin Cocks, not nearly so much difficulty is experienced in breeding those varieties to colour points as in other mixed colour breeds or in sub-varieties, such as the Laced Breasted Brown Red, Pile or Duckwing Game, Pile, Buff, Duckwing or Cuckoo Leghorns, or Buff Cochins. Most of our latter-day varieties have been produced by the crossing of the different colours—the Pile Game Fowl and Pile Leghorn being strongly marked instances. In the Black-breasted Red Game, Partridge Cochin, and Brown Leghorn Cocks the black is confined to the breast, under parts, wingbar and tail, the red being found on the neck, shoulders and back, and as long as these colours confine themselves to the parts mentioned, they exist harmoniously. Immediately a cross is used, say with a white hen, the pigments are at once brought into conflict, in some instances one wholly taking the place of the other, the black being destroyed by the white, but the red being only more or less affected. Again, this characteristic conflict of the colours is even more strongly marked in the production of the Silver Duckwing Leghorn, Silver Duckwing Game Fowl, and the Silver Grey Dorking, the cocks of these varieties being the opposite marking of a Black Red to a Pile, leaving the black entirely intact, and substituting white on the parts occupied by the red.

The production of the Silver Grey marking in any of the varieties mentioned can safely be attributed to the black being brought into direct conflict with the red. As an instance of this, which came under our own personal experience, in the case of crossing a Black Red Malay Cock with a Black Australian Game Hen, some of the cockerels produced from this cross turned out fair Silver Greys in markings, not one approaching the Black Red in top colour. At times the absorption of one colour into the other takes some little time, and shows itself rather more prominently than desired; but, on the other hand, when fully absorbed, great dependence may be placed on the persistence of the predominant colour to perpetuate its like. This applies most strongly to the white top colour when definitely fixed. As an instance of the persistency of this marking, some years back we introduced a Silver Grey cross into our Brown Red Game to obtain a paler lemon or golden tint on the neck, shoulders and back of our Brown Red Cockerels. For some seasons the Cockerels *all* came white hackled and white-backed, though *black* on the secondaries, and even to this day

an occasional Silver Birchen Cockerel will be produced. We used the Silver Grey cross ONCE only, breeding each year back to the pure Brown Red, but this persistency of the white pigment colour proved most difficult to eradicate. The red pigment is the most difficult of all to destroy, and will invariably spread itself throughout the entire plumage in various modifications of its own colour, thus offering the greatest obstacles to breeding the various mixed colour races to standard points. It will thus be seen that to produce stock in which the red pigment is not clearly and strongly defined, being more of a yellow or buff, as in the Buff Orpington, Buff Wyandotte, or Buff Cochin, great care must be exercised in mating up the breeding stock, and it is well at all times to have rather a predominance of colour on one side or other of the stock birds to neutralise the natural tendency to reversion either to the white patches, or mealiness, or black ticking which will certainly assert itself if not fully guarded against; and, again, in breeding any of the varieties which have a blue ground colour, with black barrings or markings, it is much easier to retain the black markings than the blue ground colour, the latter having a natural tendency to revert to white, so that to develop and retain the blue ground colour each successive generation recourse must be made to a shade darker ground colour in the stock bird on one side than that required in the progeny.



CHAPTER XIV.

ADVICE ON THE TREATMENT, PREPARATION, AND EXHIBITION OF SHOW SPECIMENS.

It will be understood that a highly-bred strain of Fowls are much more delicate in constitution, and correspondingly harder to rear than common Poultry, thus they will require careful housing, feeding, etc., to obtain the best results, and if the stock birds have been selected and mated to the best advantage, there is still a vast amount of attention required. One important point in breeding Show or Utility specimens is that of obtaining eggs from the stock hens, so as to be able to obtain chickens in the early part of the season. Late hatched birds rarely come to any good, especially cockerels, for the Big Winter Shows, and housing, feeding and general care of the breeding stock are most necessary to ensure success. Pullets at time of exhibiting may be a month or two younger than cockerels, as the latter take a much longer time to attain adult plumage, and without this is studied stand very little chance of scoring in the Show pen as cockerels, though frequently developing into good specimens after the first moult. We have shown in previous chapters that much rests in the hands of the breeder, by the aid of judicious feeding and general management, to induce the hens to lay at a time of the season when eggs are valuable, so that if the stock hens are not too old or worn out, there should be some measure of success attending the effort. It must be remembered that the Fanciers will obtain tenfold the benefit from a few eggs laid at the end of the winter, and to secure this result as far as possible it is wise to retard egg production the previous summer and autumn. A good plan is to let the hen, if she belongs to a variety which incubates, follow her natural instinct, even letting her sit for six to eight weeks at a stretch at the latter end of the summer. They will then invariably fall into moult earlier, and commence to lay again at a time when wanted. If eggs alone were the desideratum, this would mean a loss; but as the Fancier requires *quality* more than *quantity*, a loss would be occasioned if the egg-productive powers were forced, it being a noted fact that the first batch of eggs a hen lays in the season produces far more vigorous and healthy chickens than later batches, and the first eggs of the batch, as a rule, produce more cockerels than pullets, a point greatly desired by the Fancy Poultry Breeder. Again, where the stock birds are of great merit, eggs obtained in the early part of the season command a higher price if sold for setting, there being little demand for eggs for incubating purposes when the season is far advanced, buyers knowing full well that *their* chances of rearing good specimens from the best eggs at that time of the year would be very remote. Breeds that incubate can easily be managed by allowing them to incubate at least once each year, and with non-sitting varieties much can be done in the way of retarding egg-production at a time when not required by changing the diet, leaving off all food likely to have a stimulating effect, and removing the hens from one pen to another. This method will have a wonderful effect, and is easy of application.

When it is desired to produce eggs so that early chickens may be obtained, the feeding of the stock to this purpose will be compulsory. We do not mean that the stock birds should be fattened up, but rather, on the other hand, kept in moderate condition and vigorous, the birds being fed properly towards a high and active state of health, so that the eggs that are laid will prove fertile. Green cut bone, fed in small quantities with other foods, will be found of marked benefit to breeding stock, especially if the weather is at all bleak and cold, and will do much to bring about the desired effect. A little tonic in the drinking water at this time will also tend towards encouraging and stimulating the hens. An excellent tonic, known as the Douglas

Mixture, made in the following manner, is one of the very best : 2 oz. of sulphate of iron, $\frac{1}{2}$ oz. diluted sulphuric acid, and 4 oz. of Epsom salts, to one gallon of boiling water. One *teaspoonful* of the mixture to each quart of drinking water will be sufficient, and will improve the condition and appearance of the stock considerably.

We have given in Chapter VI., on the feeding, rearing, and management of chickens, full instructions how to proceed, and it is not necessary to make any further remarks, beyond mentioning that the best-bred chickens, like all others, once neglected never come to much good, and to ensure success in after life *must be kept growing*. The green cut bone, which we have on previous occasions strongly recommended, is one of the greatest aids to chicken raising, and acts as a preventive to that plague of high-class Poultry breeding, *leg weakness*, which so many of the major breeds are prone to. *Bone dust* is also an excellent preventive of the same complaint. Andalusians, Leghorns, Hamburgs, or Bantams rarely suffer from this ailment ; but the heavier birds, such as Brahmas, Cochins, Langshans, Plymouth Rocks, Australian Game, Malays, etc., suffer considerably, owing to the great and preponderant amount of flesh formed in proportion to bone. Growing cockerels, especially early hatched ones, frequently become completely prostrated, and at times, if neglected, rendered worthless. When a valuable chicken becomes prostrated by leg weakness *suddenly*, Parrish's Chemical Food, administered in half-teaspoonful doses twice daily for three days, then miss a day or two, again repeating, keeping the bird perfectly dry and well housed, will generally effect a cure.

When the chickens are from two to three months old they are, as a rule, able to dispense with the services of the hen, and, in fact, do better at that age without her. It is now necessary, if a large number are bred, that they should be marked in some manner so as to distinguish them, and keep a record of their breeding. This can be done in various ways, as described previously in Chapter XII.

This is also the time to separate the cockerels and pullets. Without this is done trouble is likely to ensue, besides having a deterrent effect upon their future size. Cockerels may be allowed to run together until they are five or six months old, providing one is not taken away and replaced later. The pullets will agree together for an indefinite time. At this age little difficulty will be experienced in distinguishing the sexes, the cockerels, as a rule, taking longer to fledge, and developing combs quicker than the pullets, and the process of "weeding," or discarding those which are not likely to make Show birds should now be proceeded with. There is, as a rule, but a small proportion in any flock of chickens of high-grade birds fit for exhibition purposes ; but to select the good from the bad is a task which can only be executed by one having practical experience, especially in the Asiatic and Game Breeds. Often a chicken at this age, being raw-looking and ungainly, will frequently turn out quite the best of the season's breeding. Birds that are weedy or small in comparison with their fellows of the same age, or which have any glaring faults, such as wry tail or crooked breast, had better be killed, so that those left would not be hampered, or the room they required occupied. Scarcely any beginner is likely to make a mistake where the above faults are noticeable, and with practice will be able to easily distinguish at even a much earlier age those that are worth keeping from those that had better be eaten.

Chickens that are intended to be kept for exhibition purposes should be prevented from roosting at an early age, this being one of the chief causes of crooked breasts, and it is far better to compel them to sit on the ground (providing it is quite dry) until their breastbones have "set" sufficiently. "Slipped wing" is another unfortunate tendency many of the very best birds are subject to, especially if bred and reared in a confined space. The primary feathers, or those which are hidden from view when the wing is closed properly, protrude in a more or less state of disorder, and completely spoil the bird's appearance, practically amounting to disqualification in the Show pen ; at any rate, we have never seen a bird, no matter how good in other respects, successful in the Show pen if suffering from slip-wing, and, we think, rightly so. We have strong reasons for stating that, to a great extent, this fault is hereditary, and, if any other course were open, would not advise the using of a bird faulty in this respect to breed from. If this is noticed at an early age, say from four to five months, if merely a displacement of the feathers, the difficulty can often be overcome by tying a bandage of tape around the wing, fixing the feathers properly, then continuing the tape outside the

wing to the shoulder joint, bringing it around on the under side of the wing fastening to the bandage. This will keep it in the proper position, and if not an aggravated case of the feathers being turned inside out, will frequently effect a permanent cure. Many old cocks when moulting acquire the same fault, but in their case carefully tucking the feathers in proper position while roosting will prevent the mischief becoming permanent, and it is advisable when a bird is of special value to examine occasionally during moulting time at night while on the roost. The roosts for stock birds should always be placed at a sufficient distance from the back of the house to prevent the birds breaking or damaging their tails by rubbing up against it. All these trifling details will materially assist in keeping the birds in good plumage, and tend to make them look as attractive as possible, while if neglected will cause them to present a dilapidated appearance. Fowls that are intended for exhibition require a little handling so as to keep them tame, a wild bird in the Show pen often losing whatever chance it may have possessed, besides being a source of annoyance when required for any purpose. This applies equally to the breeding stock as to the young birds intended for exhibition.

When the birds are selected for the Show pen they require a little training to accustom them to the confinement of the Show coop, and no matter how wild and ungovernable a bird is when first placed in a training pen, a few moments given to stroking them down and gently handling will quiet their fears, and if a few tit-bits are given after each performance, no difficulty will occur, they quickly understanding that no harm is intended, for the Show pen birds should be shown in a top condition—that is, a little fatter and better conditioned than if for the breeding pen. A bird shown too fat will not have the same action as if it was in nice condition. Many birds as they run about in the yard are in too fat a condition for showing, though fed on the same food as others which are comparatively thin. All this has to be considered, one bird often requiring to be reduced in weight, while another to stand an equal chance must be fed up. Experience will guide the observer as to the correct "form" the individual bird will require to be brought to. Again, it is not wise to rush off to Shows with a lot of medium birds, considering that at the large Annual Shows of the Royal Societies and the different Poultry Societies one has to meet the pick of the twelve months' breeding throughout the colonies. It is far better to pick out a few birds which stand out from their fellows in some degree, and give them undivided attention previous to exhibiting, which in most cases would not be possible where a large number were selected, thus frequently sacrificing possible chances of securing a prize through the bird or birds wanting Show condition. We have repeatedly noticed birds beaten on condition alone, excelling in every respect save this one quality, which, in the hands of a careful or experienced Fancier, would have no difficulty in securing first honours. Many young Fanciers overlook this, and think themselves harshly treated; but we venture to state that, as Poultry Shows are formulated to foster and encourage the exhibition of high-class Fowls, condition is, and should be, one of the very most important qualifications a Show winner should possess. What does a dirty, bedraggled plumaged bird look like in a Show pen? A disgrace to the man or woman who exhibited it, and on this ground alone we would like to see even more stress placed upon this shortcoming than is done by the majority of our judges.

As before remarked, when preparing the birds for the show pen, confinement in a training-coop for an hour or so daily is the best method, and a little extra food outside of the ordinary food should be given. Meat minced fine, and given daily in small quantities (about half an ounce), linseed meal boiled to a jelly and mixed with the soft food two or three times per week, a little hemp seed or canary seed mixed with the night feed, and a half-teaspoonful of sulphur mixed with the soft food on alternate days, will wonderfully assist in making the plumage appear bright and lustrous, and to the drinking water should be added a small quantity of the Douglas mixture before mentioned in this chapter, the latter to assist in giving the birds that coral-like appearance about the comb, face, and wattles so desirable in a Show bird. We have also found that a little powdered charcoal mixed in the soft food assists in keeping the bird's crop from becoming sour. This treatment should get a bird up into top condition in a fortnight. The day before the Show the bird's head and legs require a little attention, the former being well washed with soap and water, and well dried after the operation, the nostrils being cleaned if any dirt is present. For the legs a toothbrush used with soap and water will do all required if a dark-legged breed, but for white or yellow-legged fowls often dirt will

be found underneath the scales, which, on being soaked, can easily be removed with the end of a blunt penknife. A good rubbing-down each time with a silk handkerchief, after taking the bird out of the training-pen, will greatly assist in putting a bloom upon the plumage, which will improve the appearance of the birds considerably. Washing birds—those of white, buff, or parti-coloured plumage, such as Pile Leghorns—is almost a fine art, and to become a successful washer is not learned in a day. The best plan we know is that followed out by one of our most successful Pigeon Exhibitors, who has repeatedly been informed by jealous competitors that his birds were *oiled*, and they had to be convinced that such was not the case by being allowed to rub or wipe the birds with a white handkerchief. The mode of operation is rather lengthy, but if followed out properly will give startling results in improving the appearance of the birds. A plentiful supply of towels is required, and a copper of boiling water on the fire, ready at hand to use. The first water is placed in a small bath or tub, the water being heated to about 105 degrees Fahr. Into this is cut up into small shavings some 4oz. of Sunlight or other good soap, making a good lather. The bird is immersed into this, and the whole plumage well soaked, then rubbing the feathers hard (they will not break while wet), using a toothbrush on the wing-feathers if very dirty. The dirt on the plumage will show up quite distinctly while wet, and this must be all removed if a good appearance is wished for. After the dirt is all removed from the feathers the suds should be squeezed out as much as possible, and the bird immersed into another tub of warm water, heated to the same degree as the first, in which half an ounce of borax has been dissolved. The bird should be thoroughly well rinsed in this bath, taking care that all the soap is removed from the plumage, then again immersed in a third tub of water heated as before, to which has been added enough ordinary washing blue to give a decided tinge to the water, gently moving the bird backwards and

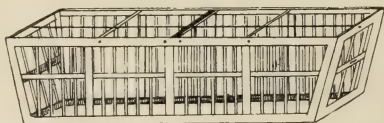


FIG. 52.—Skeleton of Travelling Coop for Eight Birds in separate compartments.

forwards so as to allow the whole plumage to be soaked, then taking the bird out, squeezing as much of the blue water out of the feathers as possible, again immersing the bird into a fourth tub of lukewarm water, to which has been added an ounce of glycerine and an ounce of honey well dissolved, giving the bird a thorough rinsing in this, afterwards squeezing as much of the water out of the feathers as practicable, well wiping with one towel and finishing with another, both of which are best warmed by the fire. The bird may now be placed in a wicker coop, with straw on the bottom. If a fine sunny day the coop may be placed in the sun, but not so as the sun will shine on the bird, or placed at a fair distance from the fire—not too close, as excessive heat would blister the comb and wattles, when in a few hours at most the bird's feathers will have webbed beautifully, and the operation is complete. It is marvellous what a difference this will make in any bird, even if of black, or red and black plumage, when properly performed. The operation is not nearly as lengthy as would appear. A number of birds, from ten to a dozen, can be done in an hour or so, and the trouble taken will be amply repaid by the improvement in their appearance. Occasionally a bird will go off into a faint when being treated the first time, but if *cold* water is applied to the bird's head in this instance no fear of evil results will arise. An excellent travelling coop, to contain four, six, or eight birds, is described by Figs. 52 and 53, and to any amateur handy with tools is easy of manufacture. The bottom of boards, the sides and ends may be made of laths, or of small-mesh galvanised wire fastened by staples to the uprights, and the sides and top lined throughout with hessian or coarse bagging. This offers great advantages over the wicker coops in not being nearly so liable to get out of shape, is nearly as light in comparison to number of birds accommodated, is not so costly, easier packed, easier handled, and last, but

AUSTRALIAN FANCIERS.



MR. H. DUNLOP,
Balmain, N.S.W.



MASTER BERTIE ALLWORTH,
Wellington, N.S.W.



MR. J. HADLINGTON,
Plumpton, Rooty Hill, N.S.W.



MR. A. J. LURCOCK,
"Lambeth Grange," Parramatta, N.S.W.



MR. W. H. MCKEWN
Gordon, N.S.W.



MR. W. M. FAIRLAND,
Hon. Treas. Poultry Club of N.S.W.



MR. W. F. WEEKS,
Wentworth Falls, N.S.W.



MR. GEO. LEEDER,
Vice-Pres. Poultry Club of N.S.W.



MR. J. H. HEMS WORTH,
Parramatta, N.S.W.



MR. J. H. BUTTERWORTH,
Parramatta, N.S.W.



MR. W. H. GOODMAN,
Stockton, N.S.W.



MR. O. WILSON,
Mount Druitt, N.S.W.

not least, secures a big saving in freight if sent any distance, each coop being charged for *separately* on our railways, so that a number of wicker coops to accommodate the same number of birds which one of this pattern will take would cost far more proportionately. Another advantage in this class of coop is that each bird may have a separate compartment, thus precluding the risk of quarrelling on the journey. We have sent birds to Shows 1,000 miles distant in this description of coop, and have found them excellent in every respect.

Many breeds of Poultry can stand any amount of showing, but there are others which go off considerably if confined for three or four days. When this is noticed a stimulant should be given, such as Jenkinson's Revivers, or tonic pills, or a little whisky and water, which will, in the majority of cases, remove any seeming ill effects, providing that they are fed on soft food the first day after returning, no grain being allowed them until the following day. Cockerels may be put into their accustomed house, but not with others, as fighting will generally take place. Pullets may be turned down in their run without much fear, though old hens often cause a lot of trouble if not carefully managed for a day or two. Exhibiting birds successfully requires much tact and knowledge, but to any Fancier who will give the time and attention it deserves the results will be fully warranted, in addition to the possible chance of securing the first prize or cup—the amateur's highest ambition.

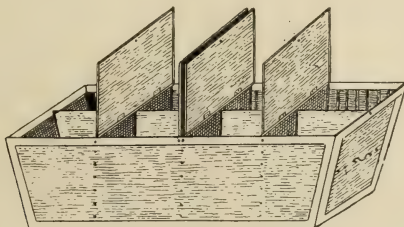


FIG. 53.—Travelling Coop, complete.

COLOUR FEEDING.

A few words on the colour feeding of Poultry, in order to improve the appearance of the plumage for exhibition, will doubtless be of interest to those who are "not in the know," as the man who is an expert Poultry-breeder, and possessed of the knowledge how to "get his birds up," holds a decided advantage with his specimens in the show pen. To do this, however, and to colour-feed Poultry to perfection, one must have at least an elementary knowledge of chemistry so far as it relates to the "transformation of food into feathers." The majority of the varieties and sub-varieties of Poultry have been perfected by artificial selection and preference, but there is still great scope to improve on the results, as far as colour and markings are concerned, by *feeding* specially for colour points, and to do this *thoroughly* is the primary secret of success. The most potent factor in connection with colour-feeding lies in the blood. The blood receives the products of digestion, and carries them to the tissues; and, as iron exists naturally in the blood of Fowls, by increasing the quantity of iron we will considerably improve the colour of the plumage, in addition to increasing the energy and vitality of the circulation of the blood, which shows itself in the comb, face, and wattles. To impregnate the body of a fowl with colouring matter must necessarily take some time, so that it is almost an impossibility to begin too soon. As the smallest chickens evince a liking to colour-feed such as given to canaries, there is no difficulty whatever in feeding them to this end. When it is desired to colour-feed, those birds only should be selected which give promise of turning out high-class, as it is not worth while taking the trouble with inferior specimens. To colour-feed properly, the following treatment will be found absolutely the best: To the drinking water add one teaspoonful of the "Douglas" Tonic Mixture to each quart of pure water for a fortnight, pure water only for the next fortnight, and so on, giving for the first fortnight one

capsule, containing 4 grains of cayenne pepper daily : two daily for the next fortnight, three daily for the next month, four daily the following month. After this the dose may safely be increased to six capsules per day. Sunflower oil is also an excellent colour-feed, given in the same manner ; and great improvements will be noticeable in the appearance of the birds if linseed, rape-seed, poppy-seed, cotton-seed, saffron, marigold, or beetroot well boiled, is mixed with the soft food three times per week, in the proportion of a teaspoonful to each bird's feed. For Bantams half the quantity will be sufficient. One or other of the various items mentioned are used by nearly all of our successful Exhibitors, and it is positively astonishing what a marked difference may be brought about by a judicious and systematic method of feeding for colour and glossiness of plumage, even after the birds have passed through the moult, *though the correct time to feed for richness of colour is just as the bird is entering the moult, continuing until the whole of the plumage is fully developed.*

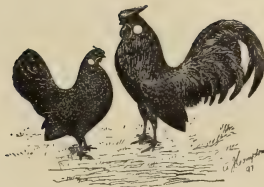
DUBBING GAME FOWLS AND GAME BANTAMS.

The cockerels of the major portion of the Game and Game Bantam race require to be dubbed, or, in other words, their combs, wattles, and ear-lobes removed. Much has been written about the barbarity of the practice ; and the Poultry Club of Great Britain, at time of writing, have the question under serious consideration.* With the Indian Game or Indian Game Bantam, or even the Australian Game cockerels, this operation could no doubt be dispensed with. As a rule, the combs and wattles of those varieties rarely grow large enough to become cumbersome ; and, moreover, the combs being of triple or pea conformation, are a decided ornament to the bird. Dubbing is considered by other than Game Fanciers as an extremely difficult, delicate operation to perform, and also a cruel one. With those persons we do not agree. We have dubbed many hundreds in our time. *Never on one single occasion did one succumb ; and, almost without exception, the bird, after being performed upon, would immediately pick food up greedily, at the same time never exhibiting symptoms of pain.* When unskillfully dubbed there is naturally more suffering caused, but this is grossly exaggerated, which, no doubt, has led to a crusade against the practice, and from the present outlook the dubbing of Game cockerels will shortly be tabooed. We would regret this step being taken, as the difference in the appearance between a dubbed and an undubbed specimen is decidedly in favour of the former. Again, in defence of the practice we would mention the exceeding pugnacity of all Game cockerels, and especially the hereditary tendency to fight anything and everything which the cocks possess during the breeding season, *a trait which no breeder has yet been able to eradicate*, and the merest novice can well understand how much greater are the sufferings of an undubbed bird during and after a battle than that of one whose comb and wattles have been removed. To dub a bird properly the operator must possess a steady hand and unflinching nerve, also a pair of small, sharp scissors. Those with curved blades are best ; these are made specially for the purpose. A basin of cold water and a sponge at hand are also necessary. The bird should first have his legs tied together at the shanks with a piece of stout tape, then wrapping up the whole body in a bag or towel, leaving the head and legs exposed. The bird's legs should be placed between the legs of the operator, the latter placing one leg across the other ; this secures the bird, and prevents him from struggling. The operator then places the fingers of the left hand under the bird's throat, the thumb being pressed against the back of the head, then with one sharp cut removing the ear-lobe, with another cut removing the wattle, following this up with the removal of the ear-lobe and wattle on the other side, then turning the bird's head towards him, inserting the thumb between the beak, the fingers at the back of the head, cutting off the comb from front to back ; two little snips (one on each side of the nostrils), then the face and head well sponged with cold water, will complete the operation. The following day the application of a little lard or vaseline to the wounds will assist them to heal quickly, and it will be found that in about ten days to a fortnight the scabs will have fallen off. A still further application of vaseline at this stage will be beneficial, and in a few weeks at most the skin will have regained its natural hue. Cockerels should not

* At a Committee Meeting held by the English Poultry Club on October 8th, 1897, the resolution was carried (with two dissentients)—“ That after December 31st, 1898, no bird be eligible to compete for Poultry Club (Eng.) Special if it be dubbed, or otherwise mutilated ” Now that the decision arrived at by the English Poultry Club on the anti-dubbing question is likely to be upheld, we would suggest that they should proceed further, and issue an edict against *Caponising*, the latter, to our mind, being a far more cruel and barbarous custom than Dubbing.

be dubbed until they have fully developed their combs, which, as a rule, is when they are six to eight months old, and the sooner the operation is performed after the comb has attained its natural size the better.

One argument used by the votaries of anti-dubbing is, why not dub the hens and pullets, if this operation is performed to improve the appearance and minimise the risk of suffering caused by the fighting propensity of the breed? To those persons we would say: First, the combs of the females are altogether proportionately smaller than in any other race of Poultry; and secondly, the inclination to quarrel is not so dominant with hens or pullets as with cockerels or cocks, though even if two Game Hens are separated for a short time and placed together later, the risks are great that neither would ever after be fit for the Show pen. All Game breeders are fully alive to this drawback in keeping their favourite breed, and should the rule become absolute that all cockerels are to be shown undubbed, the pens in the male Game section of our Shows will be filled exclusively with young cockerels.*



* With reference to the decision of the Poultry Club (England) against the practice of Dubbing Game, the N.S.W. P., P., C and D. Society and the Poultry Club of N.S.W. decline to uphold the prohibition, and have decided that the previously existing custom of Dubbing Game Fowls and Game Bantams be allowed.

CHAPTER XV.

BENEFITS AND ADVANTAGES DERIVABLE FROM SHOWS.

IN touching on the subject of the benefits and advantages derivable from Exhibitions of Show Poultry, we are strongly opposed to the making of new recruits by the wholesale to Poultry culture, such a plan being baneful in its effects, but we should like to see more useful and helpful information given to those who keep Fowls, so that it would secure a profit rather than a loss, or, even if they are successful, that they may secure a still further increase of success, and to this end (although the Poultry industry in Australia is gradually becoming a question of national importance), there is ample scope and reasonable possibility of developing and encouraging this to a practically unlimited extent by the aid and co-operation of the different Poultry Societies. The first step would be to teach the Farmers and Poultry-keepers the fundamental principles of profitable Poultry management ; secondly, show them, and fully explain which are the best breeds to keep to secure the various products ; thirdly, advise what the market requires, when their products should be placed on the market, and how the stock should be prepared that it will command and be sold at the highest rates, by this means making known to the majority who keep Poultry that which is now known by a small minority. The first principles of Poultry Societies should be to give beginners some insight and instruction on Poultry management. As it now stands most beginners have to pick up the information here and there, which of necessity is a long and unsatisfactory method. This offers a golden chance to any Poultry Society to better the condition and opportunities of Poultry-raisers, whether for pleasure or profit, and no insurmountable obstacles bar the path of a system of instruction on Poultry questions which would be of invaluable benefit to beginners in the Business or Fancy.

We are aware that there is such a system in existence in Great Britain—that provided by the Royal College of Agriculture, with Professor Brown at the head of affairs, who devotes himself to these subjects, but our Poultry Societies here could take up in a great measure this urgent work, which would naturally be of great benefit to the country at large.

As is well known, the Poultry Farmer, if desirous of success in the undertaking, must have a general practical knowledge of the feeding and management of the various breeds or varieties of Poultry ; and this is, in fact, compulsory if reasonable returns are expected. Individuals certainly obtain much of this from different works on Poultry, but this knowledge could be better given to the general public by the aid of the leading Poultry Societies representative Poultry Breeders and Exhibitors, which would be of far greater value (being practical experience) as a reliable source of instruction than any other.

Exhibitions of Show Poultry undeniably have great value from an educational point of view, as at these the various breeds of Poultry may be inspected, and the observer thus becomes familiar with the size, shape, and feather-markings of the different varieties, but scarcely goes far enough in guiding the beginner as to which breeds are thrifty and profitable, which delicate and unprofitable, or only beautiful or ornamental. Poultry Shows, as at present arranged, are generally a union of Fanciers (those who breed and exhibit birds from a love of trying to excel), and their efforts, without doubt, have done much towards improving and perfecting the different varieties of Poultry. Fanciers, *i.e.*, Exhibitors of Show Poultry, purchase the best specimens, study the laws and principles of breeding, and make careful and studied selection to produce the highest types, so as to excel in their particular varieties, and to bring the choice selections of the season's breeding before the public, spend a vast amount of time, energy, and money in supporting Poultry Shows, the general public by this means becoming the greatest gainer.

To "Fanciers" can be credited the fact of pure-bred birds being more generally kept, by this means offering great inducement towards the improvement of the common stock of Poultry, and the keeping of a more or less better class of Fowls induces the ordinary Poultry-keeper to give them more care and attention, with the natural result that they are rendered much more profitable. There is no doubt that "Fanciers" *prevent the deterioration, and often extinction, of the very breeds which the practical producer derives the greatest profit from.* Of course, there are some breeds that are now bred solely for ornament, and not for utility purposes, and others are made weakly and worthless by too fine or in-breeding, or by pampering and over-showing, but these breeds are severely let alone by the Practical Poultry Farmer, who selects for his purpose those which possess the qualities desired.

Poultry Exhibitions are of great value to the Poultry industry of any country, even where only pure breeds are exhibited, and, like Agricultural Societies, should, in our opinion, receive State aid. This would do a vast amount of good, and, after all, would but place the Poultry Societies in the position they should occupy by right.

The expenses attached to holding a Poultry Show of any magnitude are considerable, but the advantages thus afforded the community at large are proportionately great, and this should be appreciated and recompensed in some manner by the Government of each Colony. The benefits attached to Poultry Shows would be increased to an enormous extent if more encouragement were given to UTILITY exhibits, if liberal prizes were offered for Fowls, Ducks, Geese, and Turkeys, *for their table qualities only*, regardless of the purity of the breed, also on various given crosses, both alive and dressed, and on collections and varieties of eggs, etc. The Poultry Exhibitions then would be of much more value to Practical Poultry-keepers, and of greater interest generally to all classes. But the Market Poultry Breeders do not, as a rule, contribute owing to lack of inducement, and, on the other hand, decline to purchase pure-bred birds for the improvement of their stock, apparently begrudging the "Fancier" the result of his time, energy, and labour. There are, of course, exceptions to the rule, but very rare. Occasionally a Poultry Farmer, realising the possibility and almost certainty of improving the nett returns on his stock by a judicious purchase of a bird or birds to that end, will step out of the beaten track and speculate in a good specimen or two, but the action is too spasmodic and uncertain to be of much benefit, and is distinctly traceable to the fact that little or no encouragement is offered by the Poultry Societies for him to do so.

This, undoubtedly, is the principal reason that "Fanciers" support Shows in the interest of Fancy Stock alone. The Poultry Societies may be partly to blame for not offering greater inducements to the other important branches—those of egg-production and Table Poultry—and were this done in combination, the result would lead to a decided financial success. The various Colonial Governments have a duty to perform, by appreciating at their true value the Exhibitions of Poultry, and assisting to advance the cultivation of Poultry as an edible product by the aid of public money, doing by this means that which the Fanciers have done for themselves, but have not done for embryo market Poultry-keepers—that is, to provide valuable object lessons that can be easily learned, and which would be of marked benefit to the community. At the time of holding these Exhibitions, men of practical experience in Poultry raising for market and export could be secured to lecture on mating, breeding, fattening, killing, dressing, and shipping Poultry, thus guiding the Farmers as to the best means of turning Poultry breeding, even on a small scale, into a profitable undertaking, and this would materially assist in fostering and encouraging a much-neglected and yet valuable industry.

In connection with Poultry Shows and their management, one name is prominent—that of the ubiquitous Hon. Secretary of the N.S.W. P., P., C. and D. Society, A. J. Gray, Esq. Fanciers in all sections are deeply indebted to this gentleman for the long term of service he has devoted to the guidance and furtherance of Poultry matters. Mr. Gray first became a member of the N.S.W. Columbarian Club, which held private monthly Pigeon Shows in 1875, he at that time being one of the most successful exhibitors of Pigeons. In 1878 it was decided to extend the operations of the N.S.W. Columbarian Society

by including Poultry and Canaries, holding an Annual Show, the name of the Society that year being altered to that of the N.S.W. Pigeon, Canary and Poultry Society. In 1880 the Secretaryship of this Society was vested in Mr. Gray, a position which he has held with great credit for the past seventeen years. Since 1880 the Society made progress by leaps and bounds, as, for instance, that year the schedule contained 153 classes, which brought forth 621 exhibits; while at the show of 1896, the classes numbered 538, the exhibits numbering 2543. In addition, he has also for a number of years held the honourable position of a member of the Council of the Royal Agricultural Society of N.S.W., and has rendered considerable and valuable aid to the Feathered Section particularly of that Society. In 1890 Mr. Gray was appointed as one of the three Judges by the N.S.W. Government Department of Agriculture to adjudicate on the awards for the "National Prize for the Best Poultry Farm in the Province," and he occasionally fills the position of Judge of Poultry and Pigeons at some of our Provincial Shows.

Mr. Gray is recognised as a superlative organiser, and his management of the Champion Show, 1896 (which was admitted by Intercolonial visitors and others to be far and away the largest and best ever held at the Antipodes), was beyond reproach, and called forth eulogiums on all sides from visitors and exhibitors. In 1882 Mr. Gray was the recipient of an illuminated address and gold watch and chain from the Fanciers of the colonies, and in 1885 a further compliment was tendered him by the presentation of an address and purse of sovereigns. He has been, and still is, a hard worker in the interests of Poultry, etc., and for years has carried out his duties as Hon. Sec. without clerical assistance; but within the last few years it has been imperative, owing to the phenomenal growth of the Society, to receive some aid on this head. Mr. Gray's portrait appears among our "Australian Fanciers."

To Mr. W. Tyzack, in the sister Colony of Victoria, a few words of praise are due, this gentleman being closely identified with the "Fancy" in a dual capacity, that of Editor of the *Australian Poultry and Dog Gazette*, and Hon. Secretary of the Essendon and Northern Districts Poultry, Dog, Pigeon and Canary Society, Victoria, which latter position he has held for the last seven years, he also being one of the founders of the Society, and which is in itself one of our Model Societies. The "Essendon" has survived through troublous times, during which the following Societies in Victoria have become defunct, viz.: Warragul, Pakenham, Macedon, Geelong, and Ballarat; and in N.S.W., Newcastle, The United Fanciers, and Balmain.

The 1897 Show of the Essendon Society was the most successful yet held, and this satisfactory result is principally attributed to the indefatigable exertions of the worthy Secretary. We cannot, in the interests of Poultry Fanciers, close our remarks without testifying to the great amount of interest displayed by the proprietors of the *Australian Poultry and Dog Gazette* in keeping its readers up-to-date on all matters in connection with the Fancy, and though the paper is yet quite young, now being but in its eighth year of existence, there is a great and promising field open for the prosecution of its labours, which, if left in the hands of the present Editor, may safely be depended on to bear good fruit. Mr. W. Tyzack's photograph appears among our "Australian Fanciers."

Also prominent among those who have done so much for the Fancy is the worthy and energetic Secretary of the Royal Agricultural Society of N.S.W., Mr. Frederic Webster, to whom the thanks of Fanciers are due for the great encouragement offered, the Exhibitions of Poultry in connection with the Annual Show of the Society now occupying a foremost position among the principal fixtures of the Colonies. But a few years back the inducements to exhibit were very limited, but this has now been completely changed, the Poultry Section advancing with leaps and bounds, the quality of the exhibits being also superior, and at the 1897 Show of the Society the cream of the stock in the Colony was exhibited, so that the outlook for Fanciers generally, and Poultry Fanciers especially, is bright and promising while the subject of our notice occupies the position which he now so ably fills. Mr. Webster's photograph appears among our "Australian Fanciers."

Before closing our remarks on the benefits and advantages derivable from Shows, we wish to still further note the steady advancement now taking place, attributable to the work of the different Specialist Clubs

in the Colonies, and to the efforts of the Poultry Club of N.S.W. in particular. The President (Mr. H. Montgomerie Hamilton), the Hon. Sec. (Mr. L. L. Ramsay), and the Committee of the above Society are all energetic, enthusiastic workers in the interests of Poultry. The President is well known as a sterling Fancier among Fanciers, and a gentleman whom it is safe to assert has at heart the furtherance of Poultry matters generally. To his guidance, to a very great extent, the phenomenally successful Show held by the Society in 1897 is principally due, and we trust that he will long continue to occupy the position of President of the Poultry Club of N.S.W. Messrs. Hamilton's and Ramsay's photographs appear among our "Australian Fanciers."

It is to those gentlemen who devote their time and energies to the holding of Shows that the decided improvement taking place in Fancy Poultry is solely due, as were the inducement to excel removed, the major breeds of Poultry would gradually lapse; but while the active membership of the "Fancy" is so strongly recruited, there is little fear of retrogression in this respect.



CHAPTER XVI.

JUDGING EXHIBITION STOCK.

JUDGES we possess in plenty, but, unfortunately, too many so-called *all-round* ones and too few specialists. It is an undoubted fact that few men possess the knowledge (covering many breeds) of the minor and finer differences which go towards making a bird valuable from an Exhibition point of view. For instance, *duck feet or crooked breast in any variety whatsoever should be an absolute disqualification for the Show pen*, and, we think, rightly so; but how often it may be noticed that birds duck-footed or crooked-breasted have first prize cards attached to their pens. Feathered legs in some varieties, such as the Orpington, for instance, *is a disqualification*, but we have repeatedly seen birds of this variety winning with feathers on the shanks. In a number of cases individual opinion is substituted for recognised authentic standards, with the result that many a young beginner is disgusted with the discrepancies existing between the winning specimen of the breed and the bird described by the standard. We have noticed specialist breeders exhibiting two or more birds in the one class, the Judge awarding the highest honours to the most inferior specimen. This does not affect the exhibitor in instances where he may own all the winners; but is sadly disappointing when an inferior bird, on standard points, belonging to another exhibitor, is placed in front. We are strongly of the opinion that all Judges should be instructed to handle the specimens that they consider to be in the money *before final adjudication*, as by this means many faults that are not patent by a superficial examination would be exposed, and far more satisfaction given generally. By having specialist Judges to officiate in the respective breeds, there is far less danger of birds that are "faked" or "trimmed" passing the Judge, and this to the honest exhibitor means a great deal. Procuring specialist Judges would only apply to the principal fixtures in the Colonies, the plan not being possible to carry out in the smaller Shows, owing to the great expense that would be incurred; but as the classes are very much smaller, and the birds exhibited, as a general rule, inferior, at these Shows, there would not be nearly the same responsibility attached to the judging of the exhibits. In ALL cases, however, at Provincial Shows the judging should be entrusted to *two* men, one to take the hard-feathered, the other the soft feathered classes, as it is a very rare occurrence to find one man who can capably judge the Asiatic breeds, then do the same with the Game varieties and Hamburgs. At the same time it is an easy matter to criticise the awards of any Judge, no matter how competent he may be, solely because no bird yet produced has been absolutely perfect. This being read by beginners and others, allows them to form the conclusion that the birds were not capably judged, owing frequently to the critic faulting the winner, and failing to demonstrate the vast superiority of even this faulty bird over the other competitors. We are solid in our belief that our Judges, without exception, are men of integrity, and that in some instances gross mistakes are made by them, through no other fault than incompetency to judge the particular breed—not, as is at times too often suggested by interested exhibitors, that they are dishonest. We have heard many and oft groundless charges made wholesale against gentlemen who undertake the onerous and thankless task of judging, sometimes made on the spur of the moment, because of disappointment at defeat, by others belonging to the win, tie, or wrangle brigade; and by others, again, who do not possess a particle of the true Fancier element in their composition, but seek to win out of mere jealousy alone, and do not scruple as to what end or means they stoop to attain the object.

The extremely variable judging of the various breeds within the past ten years has been most noticeable. In some breeds, such as the Brahma, the sole idea of the Judges has been to award prizes to those specimens which were the nearest approach to Cochins, quite at times ignoring the true Brahma shape and type. At other times an excessive amount of leg and foot feathering in the Asiatic breeds pulled them through; a bird that failed in the slightest degree in this respect (no matter how good otherwise), being passed as unworthy of

notice. This, as a matter of course, becomes very puzzling and discouraging to the experienced, while to the young beginner the riddle is impossible of solution, it being a more than difficult task to learn from the awards of Judges which is the correct thing to Show and breed for. There will always be, naturally, a more or less divergence of opinion on the merits or otherwise of even the best birds, as the ideal standard of perfection has not yet been attained in any one specimen, different judges placing more or less weight to the presence or absence of any given merit or defect. It is now time that the tendency to such variation should be limited within reasonable bounds, so that in the future the gross injustice to the exhibitor of having an absolutely good specimen passed without notice, and the keen disappointment of being beaten by an altogether inferior exhibit, should quickly become a thing of the past. As previously remarked, there will always be a more or less difference of opinion on the merits of even a class of *good* birds, more especially if these birds are slightly diverse in the good and bad qualities or points. This difference of opinion, when not carried to extremes, has to a certain extent a beneficial effect, as, if the actual decisions of Judges could be foretold beforehand with absolute certainty, the entries would quickly fall off, as only those who were positively certain of winning would send their birds.

The numerous dodges and countless tricks resorted to by a small section of exhibitors is about the meanest method of fraud we know of, and times without number we have noted these devices to attract the notice of the Judge, *not*, as we are pleased indeed to state, *always* being successful, such as hempseed being scattered in the pen, just a little sawdust sprinkled on the floor, a piece of coloured worsted attached to the pen, etc., etc. These trifling things give an unfair advantage over the honest, and more especially *absent*, exhibitor. We have a strong objection to the sending of pen numbers to exhibitors. A better method of procedure would be, *not to allow exhibitors to even know their pen numbers until after the judging had taken place*. This could easily be arranged by the stewards (electing non-exhibitors to the position) taking delivery of the birds at the doors of the building (not allowing exhibitors inside), and penning the whole of the exhibits. The task would not be a great one, and would certainly do away with much of the opportunity for fraud, and remove at one stroke the doubt existing at times as to the probity of the Judge. Under the present system, if an exhibitor has the "pull on a Judge," nothing is to prevent him giving the latter his pen numbers, and win right through the Show.

Moreover, many Judges make awards in the Cockerel and Pullet Classes on the same basis as the adult specimens, overlooking the fact that a Cockerel, who will eventually make up into a fine adult specimen, is, as a rule, rather more leggy and smart than a fully-developed cock, and a Pullet that will develop into a well-proportioned hen should, as a Pullet, look on the neat and fine side, in both cases quality, feather, comb, etc., being of far more worth than mere size, with absence of quality.

To point out some of the difficulties the most efficient Judge has to encounter in happily placing his awards, one must remember that even the *specialist breeder* has a difficulty in selecting his birds for Exhibition—those that he has noticed DAILY and HOURLY from the shell to the Show pen—looking all the while for their *good points and imperfections*, so how can it reasonably be supposed that a Judge should be infallible in handling a large class of birds which have been thoroughly studied for months by, perhaps, a dozen or more individual exhibitors; and during our Show career we have found, except in very rare and isolated instances, that Judges are most courteous, and always ready to acknowledge any oversight on their part to which their attention has afterwards been drawn. Could any man be expected to do more?

Again, as the task of judging at any Show of magnitude is no sinecure, we would like to see the gentlemen who undertake this responsible and often thankless task given all the consideration possible, so that the awards made by them can be carefully and deliberately weighed. This can in a great measure be secured by the prevention of exhibitors and others from being present while actual judging is taking place. By this means the decisions are not likely to be interfered with or partially upset, the Judge being then able to execute the task imposed upon him in a much more efficient manner.

There should be no difficulty whatever in placing the award cards upon the pens in each class throughout the Show as quickly as judged, so that by the time the judging was completed the whole of the

prize cards could be attached to the pens, and the Exhibition thrown open to the Public. *All Judges should be instructed to note their awards on the pen number card*, in addition to the awards made in their judging book, which could be checked as soon as handed to the Secretary. The steward in attendance on each Judge could, immediately the judging was finished in the class, affix the cards, the whole thing working smoothly—not, as is sometimes the case at some of our large Shows, exhibitors having to wait until the second night of the Show to ascertain who are successful.

At the larger Shows, exhibitors should also be allowed the privilege of nominating a specialist Judge for their respective classes, a list of the recognised specialist Judges' names being inserted in the schedule, the gentleman receiving the greatest number of votes to be the elected Judge. Should the latter be an exhibitor his entry fees could be returned, providing he was favourable to undertaking the task. By this means much of the dissatisfaction now experienced would be obviated, as all exhibitors of Show or Fancy stock would distinctly prefer a competent Judge to an incompetent one, and it goes without saying that an experienced breeder of any variety would be in a much better position to discover the faults or merits of a breed in which he was interested than another Judge who was not constantly in touch with the efforts of breeders to try and produce specimens approaching the standards laid down for their guidance. There is ample room for improvement on the present system of electing Judges, especially at our large Winter Shows, and the only rational means to give entire satisfaction to practical breeders is to elect specialists to adjudicate on their specimens. Mistakes would, no doubt, occur, no matter what method of procedure was followed, but would be reduced to a minimum if the course suggested were adopted.

We would also like to see the Judges act decisively and fearlessly in cases of fraud, marking the pens "Disqualified* for Fraud" where in evidence. This would quickly purge the Fancy, so much so that after one object lesson in this public manner cases of faking and trimming would be very rare. This latter point especially is more or less openly practised in some of the classes, and often winked at or unnoticed by the Judges, the case having to be a very gross one indeed for them to take action, and frequently then is only brought into notice by a protest from some other exhibitor, thus causing jealousy and friction, which could all be avoided by the Judge acting decisively and without fear or favour, and certainly act as a preventive against Poultry writers ventilating their literary attainments by roundly abusing everyone connected with Shows or Show management. It will be understood that a Judge, *to suit all*, must be specially endowed with tact and experience; he must be quick, agreeable, absolutely accurate, have a wonderfully retentive memory, unvarying judgment, possessed of the patience of Job, and, to be able to soothe the troubles of defeated exhibitors, he must of necessity be a phrenologist, a physiognomist, a psychologist, and hypnotizer. These combined qualities are not possessed by any man, and, therefore, some allowance must be made for any trifling mistakes likely to occur in judging Poultry. An all-round Judge is supposed or required to follow the standards laid down for each breed, thus having from ten to a dozen subdivisions of each bird to examine, each of which may be defective, and these same defects vary, so that in a large class his mind and attention may be brought into direct operation numberless times, so that it cannot reasonably be expected that mistakes will not be made, and also that it is impossible for an all-round Judge to give entire satisfaction when judging a large number of birds at different times and places, making his awards agree *exactly* when done twice or more, though with judging a FEW birds of great merit he may possibly do so.

Unfortunately, under existing conditions, with few exceptions, exhibiting high-class specimens of Poultry is more or less a lottery, some of our Judges possessing but a superficial knowledge of the breeds they adjudicate upon. No man living can judge ALL varieties of Poultry and give universal satisfaction, thus it now becomes absolutely necessary, *if standards for the different breeds are to be of any worth*, that Judges should go through an examination before a committee of practical breeders of the breed or breeds which the Judge professes to know, and if found efficient he should be presented with a diploma for each breed as a specialist Judge of that breed. This would greatly assist in purging the Fancy of a class of men who are only too ready to judge ALL varieties of Poultry and—even elephants, if requested.

CHAPTER XVII.

DISEASES POULTRY ARE LIABLE TO.

It is an undoubted fact that nearly, if not all, Poultry diseases can be distinctly traced to neglect in some form or other, such as damp or draughty houses, impure water, filthy houses or runs, or careless feeding, and it is much easier to obviate the possibility of disease appearing in a flock of birds by attention to these details than it is to treat them when attacked; but often, in the best managed yards, Poultry will succumb to disease in some form or other, but, if not too far gone, may be saved by judicious nursing and treatment, and if the bird or birds are of value the instructions here given, if carried out in a proper manner, will frequently effect a permanent cure, though, from our experience, which has covered a number of years, we have never found it worth while to breed from a bird which at any time of its life has suffered from a serious disease, though apparently healthy at time of mating. The stock thus bred, having a pre-disposition to disease, and being constitutionally weak, very little benefits are likely to be derived by breeding from birds thus contaminated.

In placing the various diseases in alphabetical order for reference, we conscientiously state that the treatment here given is only likely to have a good and lasting effect if the affection is of an acute or sudden character, and if the symptoms of the disease are chronic little possibility of making a permanent cure is held out. In the latter case, it is far better to end the birds' life at once than allow them to linger on for an indefinite time, with small hope of recovery.

Abortion.—Hens suffer considerably from this if violently driven about or worried by other hens, especially in a small run. If noticed within a reasonable time, removal to a quiet spot for a day or two, with a little carbonate of soda added to the drinking water, and fed moderately on soft food, will generally effect a cure. This must not be confounded with the regular laying of soft eggs, this arising from quite a different cause, which is mentioned later on in this Chapter.

Apoplexy, Paralysis.—Generally arises from over-feeding, especially if the diet is of a fattening nature. As a rule, there are some symptoms noticeable, such as an unsteadiness of gait, or, again, the bird circling round and round; in some instances this will be accompanied with the bursting of a blood-vessel, and in most cases ends fatally when this occurs. If the bird exhibits signs of unconsciousness, opening one of the larger veins underneath the wing with a sharp-bladed penknife, allowing the fowl to bleed freely for a few minutes, will often effect a cure. If the bird is bleeding too freely this can be stopped by the application of burnt alum, or diluted carbolic acid, or solution of sulphate of zinc. The bird should be fed on a small quantity of soft food, such as bread and milk, for a few days. This is often confounded with paralysis, the latter, however, generally arising from pressure on the brain or an injury to the spinal cord, very little, if any, permanent advantage being gained by retaining a bird affected either with apoplexy or paralysis, even if cured.

Asthma.—Asthma is one of the symptoms of roup. When it is noticed that the bird has caught cold, and there is heavy and laboured breathing, or an apparent shortness of breath, nothing better can be given than five (5) drops of tincture of aconite in a teaspoonful of water twice a day, keeping the bird warm and dry. Another plan, where a pen of birds have to be treated, is to place a piece of asafoetida about the size of a marble, wrapped in a piece of muslin, in the bottom of the drinking trough, securing it in some manner so that the birds cannot pick it out,

Break-down.—This is the "baggy condition" frequently noticed in old hens that have been over-fed. The rear part of the abdomen is principally composed of fat, and hangs down, often touching the ground. Giving shorter allowances of feed will often remedy matters, though a hen that has been allowed to get into this state is of very little use as a layer, and almost worthless to breed from.

Bronchitis.—This is present when the bird has a difficulty in breathing, often keeping the beak open to do so. By giving a tablespoonful of castor oil at night, and slightly acidulating the drinking water with sulphuric or nitric acid, giving cayenne pepper in the soft food, and keeping the bird thoroughly dry, and free from draught, this treatment should quickly exhibit signs of improvement in the fowl's condition.

Bumble Foot.—This must not be confounded with ordinary corns on the sole of the foot or under joints of the toes. Some breeds have a distinct tendency to develop the complaint called bumble foot. All are subject to corns if kept on a hard rough yard or run for any length of time. Bumble foot is a partially soft gathering on the sole of the foot proper, the skin appearing shiny and inflamed, and on opening with a lancet or sharp knife pus or cheesy matter, if of long standing, will exude. In rare cases a cure may be effected by fomenting the part with hot water, opening the swelling and extracting the matter, binding up the foot with a linen bandage after applying carbolic oil or vaseline to the wound, keeping the bird on soft earth or sand. We have seen dozens of instances in which every care and attention had been bestowed upon the birds, but never saw a complete cure. Corns are a hard, scaly formation, mostly caused by the birds running on a hard, rough surface. Chickens thus accommodated, often suffering from two or more, especially on the under joints of the toes; if taken in time, before the bird becomes crippled, a daily application of sweet oil or lard to the corns, and turning the bird down on a grass run or sandy soil will assist in the removal. Birds once affected are always liable to the complaint.

Canker.—This is a cheesy matter, which at times forms under the tongue at the sides of the mouth, and also congregates in the food passage, if not treated often choking the bird. There is, as a rule, an offensive smell arising from this complaint, and in the majority of cases can be traced to impure food and water. A solution made of one-fourth chlorate of potash, one-fourth powdered alum, and one-half water, to wash the head and eyes, and thoroughly swab the mouth and tongue, first removing the ulcerous formation without causing bleeding, afterwards applying powdered borax to the sores, giving a few drops of Parrish's Chemical Food daily, restricting the bird to a diet of soft food and green stuff till well will mostly effect a cure.

Catarrh.—Coryza, or catarrh of the nostrils, is known by the frequent sneezing and watering of the eyes, accompanied by a thin, slimy, and often offensive discharge from the nostrils. The bird affected should be removed to a warm, dry coop or house, washing the eyes with soap and warm water, afterwards wiping thoroughly dry, feeding on soft warm food slightly seasoned with cayenne pepper, adding four or five drops of tincture of aconite to each half pint of the fowl's drinking water. This can, in nearly all instances, be traced to exposure, damp or wet weather, or sudden variations of temperature, and if neglected will probably develop into roup.

Chicken Pox, commonly called Warts.—This is evidently a disordered condition of the blood, and is chiefly confined to young chickens. There is no doubt that mosquitoes attacking the birds affected irritate the sores considerably. We do not think that mosquitoes are the *sole* cause, often having chickens in the same brood escape entirely, although the houses and roosting spots were infested with the pests. At the same time this rarely attacks adult birds, and is generally noticed at the end of the summer, and if the weather is cold or wet at this period the disease appears more severe. The head, comb, face, eyes, lobes, and wattles, and frequently the undersides of the wings, are the ordinary seat of the sores or ulcers that constitute the prominent feature of chicken pox or warts, and if the sores extend to the eyes great inflammation is caused, often resulting in the loss of one or both. If taken in the first stage, that is when small whitish lumps are noticed on the bird's head, comb, etc., carbolated vaseline applied to the ulcers twice a day, feeding the bird on soft food and a little chopped meat, with a plentiful

supply of green food, will quickly effect a cure; but if in a bad state, an ointment made of equal parts of powdered bluestone, sulphur, and lard, rubbed on the sores night and morning, will be found efficacious. Another excellent remedy is eucalyptus oil, applied by the aid of a small brush. In all cases soft food only should be given for a few days, and if the weather should be fine and dry, an ounce of Epsom salts, mixed in the soft food supplied to 20 chickens two to four months old, will be found of great benefit. A well-known medical gentleman, and a prominent Fancier, gives a certain preventive of the troublesome disease to which chickens are liable. He states: "After trying various methods of warding off this dread disease among chickens, I find nothing so successful as sprinkling chloride of lime about the house, particularly in and around the walls inside. It need not to be taken away while cleaning up the droppings. Some may remark that this is a dangerous experiment, and may poison the fowls by their eating the lime. As far as my experience goes, however, there is little fear of the latter catastrophe, as I never lost one through the poison, and on the other hand, after adopting the remedy given, I have never had a single chicken attacked, while at the same time my neighbours, who were afraid to use the chloride, lost great numbers of chickens annually, and many other chickens that the disease did not kill became blind, or partially blind. I can strongly recommend it to the notice of those who have been pestered each successive year with this horrible disease."

Cholera.—This dreaded disease devastates whole yards at times, and is highly contagious, the principal cause being water heated by the sun and becoming foul, the birds attacked exhibiting symptoms of violent thirst, standing about the water trough, becoming that weak in an hour or so that they cannot stand. The bird is purged, the droppings being of a greenish, slimy consistency at first, but later having a white and milky appearance. Plenty of cool water, a regular supply of green food, and ample shade resorts for the birds are the very best preventives. Neglect of these precautions often develops cholera. We have found that removal of the birds to a cool spot, allowing *fresh milk only to drink for twenty-four hours*, is an excellent remedy in the earlier stages. In severe cases pills made as follows will be found effective.

Rhubarb	...	...	...	...	...	4 grains
Cayenne Pepper	...	...	...	...	...	2 "
Sulphate of Iron	...	...	...	...	...	2 "
Quinine	...	...	...	...	...	2 "

One pill should be given every four hours until recovery. The drinking troughs should be thoroughly cleansed and disinfected with Condy's Fluid or carbolic acid diluted, and the birds given a plentiful supply of green food. Birds that have died from this disease should be burnt, not buried, to minimise as much as possible the spread of the epidemic.

Consumption.—This is generally known by the term "going light," that is, a wasting away of the tissues, this condition being very prominent in the last stages of liver disease, the bird eventually becoming a mere bony frame and feathers. Highly-bred Fowls and those more or less in-bred are the most subject to this disease; but other causes also tend towards encouraging the complaint, such as damp and filthy roosting houses and runs. Recovery is exceedingly rare where the disease has a hold on the system; but if suspected, and treated in the earlier stages by removal to dry and clean quarters, giving a half teaspoonful of Parrish's Chemical Food daily for a week, fair results may be anticipated. A little quinine added to the soft food daily will also be found of marked benefit.

Cramps.—Chickens are the most frequent sufferers from this affection. They make a plaintive noise, step backward, sit down, twist their heads over, the toes often being twisted out of shape, and seem to suffer great pain. This is mostly caused by the birds roosting on damp or wet ground, and, if noticed at an early stage, may be checked by removing to a perfectly dry house, with sandy bottom. Sound, wholesome food should be given, with a tonic, such as the Douglas Mixture previously described, placed in the drinking water. This is distinct from leg weakness, treatment for which we explain later,

Crop-bound.—This is invariably caused by over-feeding, and, except in rare instances, may easily be cured by giving the bird fairly hot water by the aid of a spoon, working the contents of the crop about thoroughly, dieting the bird on a very moderate allowance of soft food (after the first contents are consumed), to which has been added a pinch of Epsom salts, and a little iron tonic added to the drinking water. In some cases this treatment will not have the desired effect, at times the cause being grass formed into a ball in the crop, or by some larger substance obstructing the passage, such as a piece of bone or charcoal, or portion of the stock of a cabbage leaf. To remove this, pluck a few feathers from the breast near the top of the crop, cutting through the outside skin, and also through the skin of the crop, about one inch in length, in a downward direction, removing the whole of the contents of the crop by the aid of a large hair-pin, afterwards giving the bird a few teaspoonfuls of hot water, heated to 105 degrees Fahr., working the crop about well with the finger. It is not necessary to sew up either wound, an application of carbolic or eucalyptus oil will be beneficial. Care should be taken that the bird is placed apart for a few days, to prevent others from picking at the spot, feeding the patient on soft food while recovering.

Crop (Watery).—This complaint also arises from neglect in feeding, causing over-distension of the crop, and mostly occurs where the fowls are fed with grain food at irregular intervals, especially where no regard is paid to the hours of feeding, and, large quantities of grain being thrown down, some of the birds will eat to repletion. The fowl then drinks, and the moisture thus taken causes the grain to swell to an enormous extent, distending the crop accordingly. This occurs time after time, and the crop soon becomes permanently over-distended, and fails to resume the normal dimensions when empty, eventually developing into "crop dropsy" and "abdominal dropsy," owing to the accumulations of watery or serous matter in the cavities named. In young birds dropsy is generally due to an anæmic condition, and in adult birds to the obstructed return of venous blood. There are various ways of treating the disease. If the inflammation is the result of *crop-binding*, a new-laid egg, beat up with two teaspoonfuls of milk, half being given night and morning (before feeding), followed with 10 grains of aromatic chalk powder twice a day, mixed with the food, which should be fed sparingly, and consist entirely for four or five days of stale bread and milk, or other easily digested and nutritious food. If sourness or indigestion is the cause, an ordinary rhubarb pill on alternate days, with a pill night and morning made of powdered charcoal, cod-liver oil, and oatmeal, sufficient to make the whole into a stiff consistency. If the crop is distended with wind, and on pressure discharges from the bird a sour-smelling, slimy fluid, the best treatment is to slightly acidulate the drinking water with a few drops of nitric acid, and mix a half teaspoonful of sal volatile with the soft food each morning, giving the bird a slight tonic occasionally till recovered.

Debility.—This is not exactly a disease, more often arising from over-exhibiting, which at times prostrates the bird, the bird moving about in a listless manner, with little or no appetite. The best remedy in this instance is to feed the bird on raw eggs, two or three per day, placing in the drinking water a half-teaspoonful of Parrish's Chemical Food to each half-pint, or a little quinine mixed in the soft food daily, giving, on the appearance of recovery and return of appetite, a little fresh meat, well minced, and an ample supply of green food.

Diarrhœa.—A sudden change in the weather, or even of diet, is often responsible for this affection, the excrement adhering to the feathers around the vent. The latter becomes inflamed, with a whitish skin forming around the outer edge. This becomes offensive, and in bad cases the fowl has an extreme difficulty in passing anything from the bowels. The bird should be removed to dry, warm quarters, and given a tablespoonful of castor oil, and the vent bathed daily with soap and warm water. After being wiped dry, anoint the vent with vaseline; on no account pull the scab formed away until loose, as this will cause bleeding and irritation. If the looseness of the bowels be observed early, a little powdered chalk added to the soft food for a day or two will often remedy matters, but if a very serious case it is best to administer chlorodyne in doses of 5 to 10 drops every three or four hours. After the attack has passed the feeding should be moderate, with a little tonic added to the drinking water. Bone dust may in all cases be mixed

with the soft food, and will tend in a great measure to prevent or modify to a great extent the recurrence of the disease. This is especially effective with chickens.

Diphtheric Roup.—This is one of the very worst diseases Poultry are liable to, especially highly-bred stock, and if not promptly treated is quickly followed by death. The symptoms are a whitish growth in the mouth and throat, with sores or ulcers on the comb, eyelids, etc., and appear analogous to diphtheria in the human being. Where not accompanied by diarrhoea and true roup, the following solution will be found very effective:—To $\frac{1}{2}$ oz. common alum, $\frac{1}{2}$ oz. common bluestone, ground to a fine powder, add 6oz. of water and 20 drops of Calvert's No. 5 carbolic acid; shake well before using, swabbing the mouth and throat thoroughly with the mixture, using a soft camel hair brush for the purpose. This treatment is very severe, but just as effective, but requires to be done quickly. In extreme cases it may be necessary to repeat the operation every hour or so, but in the majority of cases one or two dressings will effect a cure. The bird must be kept warm and dry, and fed on soft, assimilating food while under treatment. For the outside ulcers carbolic or eucalyptus oil, applied night and morning, will in most cases be found effectual, and a pinch of Epsom salts added to the soft food each day will act as a tonic, without purging.

Dropsey, or Ascites, is a watery condition of the abdomen, due to a collection of serum in the cavity. When seen in young chickens it is usually due to improper feeding or bad sanitary surroundings, producing an anemic condition. In adults it may be traced to the same causes, but is more often due to some obstruction of the circulation of the blood, either by pressure of tumour or structural disease of the abdominal organ. Sunshine, good food, and clean houses and runs, combined with purgatives and tapping, will remedy this condition. Tapping is done by inserting a hollow needle through the muscles of the abdomen into the cavity, thus allowing the fluid to escape. Place one tablespoonful of sulphate of magnesia into one quart of the drinking water, using for a few days, changing this to 10 grains of iodide of potassium to each pint of drinking water. Birds that have suffered from this disease, even if perfectly cured, should never on any account be bred from.

Dropsey of the Feet.—This is wrongly confounded with gout. It is simply a swelling of the feet and toes, due to a sluggish state of the circulation, over-feeding, too little exercise, or none at all. A laxative, with plain food and green vegetables given in abundance, will remove this condition, compelling the bird, when recovered, to take plenty of exercise by scratching for ALL grain food, which should be buried.

Dropsey of the Heart Sack.—This is the only disease of the heart at all common in Poultry, and is seldom thought of while the bird is alive. The symptoms are moping, restlessness, with the head continually thrown backwards, inability to feed from the ground, and, when attempted, reeling and staggering about, tumultuous action of the heart, and occasional spasms. A merciful ending of the bird's life is wise in this case.

Dropsey of the Wattles.—This condition may arise from blows or bruises, the wattle oftentimes being swollen to the size of an egg, and highly inflamed. The swelling should be opened at the bottom and the contents evacuated, afterwards syringing well with warm water, applying carbolated vaseline or a little sweet oil to the wound.

Dysentery.—This disease is present when the bird passes blood, and is rarely cured, but some success has attended the use of 5 drops of laudanum or 5 drops of chlorodyne, given every few hours, feeding on recovery for a few days with soft food and finely-chopped onions, giving the bird a couple of Jenkinson's Revivers in the morning, and tonic pills at night.

Eczema.—This disease is not contagious, being found chiefly in highly-bred birds fed on a too stimulating diet. The comb and wattles are the principal parts attacked. First, white spots appear, and, growing quickly, run together, then burst, discharging a liquid which dries, forming a crust. In severe cases the discharge falling on the feet and toes irritates them, the bird loses appetite, and is sluggish in movement. To treat this, give two grains of calomel every alternate night, and a pill twice a day for a fortnight, made of $\frac{1}{2}$ grain of citrate of iron and $\frac{1}{2}$ grain of quinine, applying night and morning to the part affected zinc

ointment. Plain food and green vegetables, combined with this treatment, will quickly improve the bird's condition.

Egg Bound.—The symptoms of this are very noticeable, the hen often going to the nest and exhibiting signs of trying to expel the egg. At times this is caused by an unusually large egg. The best plan to ease the passage of the egg is to pass a feather dipped in olive oil up the vent, working it gently round until it meets the egg. A tablespoonful of warm treacle given to the bird, and then a fomentation of the vent over a jug of hot water, oiling afterwards, will greatly assist matters. Care must be exercised so as not to break the egg, as this sometimes proves fatal. Some hens, however, go repeatedly to the nest without laying; but this is no proof that they are egg bound. The finger placed up the passage will quickly prove whether the hen is egg bound or not.

Egg-eating.—This vice is caused principally by thin-shelled eggs becoming broken in the nest. One bird takes a bite, and the rest are soon encouraged to take part in the feast, and finding that eggs are palatable, the craving becomes insatiable, with the result that the habit once contracted is difficult to eradicate. Sometimes want of animal food leads to this disgusting habit, and if a hen or hens are inveterate egg-eaters, they should be killed, or in a short time the whole flock will follow in line. Nest boxes placed in semi-dark secluded spots, and the eggs gathered frequently, will assist in prevention, and an egg or two after having the contents expelled, and filled with the strongest mustard, mixed to a fair consistency, and placed in the run, will also be found fairly effective. This habit is often encouraged by carelessly throwing egg shells about the yard. These should be well broken up before the Fowls are allowed to get them; but if the birds are allowed plenty of shell-forming material, such as lime or mortar, oyster shells, etc., the egg shells are better burnt.

Egg Passage, Protrusion of.—This is frequently caused by the exertions of the hen to expel an unusually large egg, especially in old hens that are debilitated. Constipation and over-feeding are also causes of the same complaint. The hen should be placed on a diet composed principally of rice for a few days. If the part shows no indication of receding, bathe with lukewarm water, gently anointing with linseed or sweet oil, pressing the protrusion back into the body. Give a pill composed of one grain each of tartar emetic and opium, and two grains of calomel daily to a Fowl of the larger breeds, one-half of the dose being sufficient for a Bantam, placing ten drops of aconite in the drinking water, and feeding on a plain and non-stimulating diet till recovered.

Eggs (Soft-shelled).—These are generally due to stint of shell material. Prolific layers, and especially where stimulating food is given, are most prone to produce soft-shelled eggs. Fright will at times cause premature expulsion, and occasionally causes egg-rupture within. The treatment consists in attending to the following directions. 1st. Shell-making material should be supplied. Lime-water will often answer the purpose. Ground oyster-shells or mortar, or even ashes and cinders, can be allowed with advantage. 2nd. Stimulating food should be withheld, and the laying checked, if possible; an aperient is also advisable, and a little sulphur and calomel (10 grains of the former to 1 of the latter) should be afterwards given as an alternative, and a little iron tonic added to the drinking water. 3rd. Fright, especially while on the nest, should be guarded against. The regular and systematic laying by hens of soft-shelled eggs is generally the result of a diseased condition. This will often be noticed in a hen that is overfat. Too free use of cayenne pepper or spices, or over-feeding on hempseed or buckwheat, owing to their over-heating tendencies, often inflame the ovary and oviduct, frequently causing ovarian disease, sometimes death, and in most cases soft-shelled eggs. A fowl suffering from worms may often lay soft or shell-less eggs, and too few hens with a strong, vigorous male bird, is occasionally the cause.

Elephantiasis, or scaly legs, as it is generally called, is a whitish, scurfy growth on the shanks and feet, and is, no doubt, due to a microbe, in some instances growing in such quantities that the scales of the legs are forced up, and look very unsightly. This is very contagious, one bird frequently contaminating a whole flock; and even if removed from the house, the birds left will mostly contract this filthy disease unless the

whole floor and roosts are thoroughly disinfected. All breeds of Poultry are more or less liable to it. There are two or three different remedies for this, such as thoroughly scrubbing the legs and feet with soap and warm water, afterwards anointing with sulphur ointment, repeating daily. Another which we have tried and proved effective is a teaspoonful of sulphur, $\frac{1}{2}$ oz. of powdered bluestone, mixed with lard or grease, rubbing well into the scales and parts affected, and a week after the growth may easily be removed by scrubbing with a brush, using soap and warm water. Still another is to mix up lard, kerosene, and carbolic acid, a spoonful of the latter to half a pint each of the two former, dressing the legs and feet, and also painting the roosts with the mixture. Still another, which we have proved by lengthy experience to be as good as any, is to dress the bird's legs and feet with carbolic oil for a few days, when the growth can easily be removed by the use of soap and warm water.

Enteritis.—This is an inflammatory disease of the small intestines, in very mild cases including only the mucous membrane; but in severe cases, extending to all the layers of the bowels. It is not infectious, and if a number of birds are sick at the one time with the complaint, it can be traced to being exposed to the same conditions. It is caused by feeding too stimulating or irritant foods, to eating poisonous mineral or vegetable, or to the presence of large numbers of worms in the bowels. Unslaked lime, if in small lumps, and swallowed by the bird combines with the water in the crop and bowels, producing great heat and irritation. The symptoms are great weakness, the bird squatting on the ground in a listless manner, with eyes partially closed, and in a very feverish condition generally. The excrement is of a watery, mucous, stringy nature, sometimes yellow, and if blood is passed with the discharge, death quickly follows. If it is due to an irritant in the bowel, a dose of castor oil will often remove the cause; if constipation is observed to be present part of the time, injections of warm milk and castor oil are excellent; if traceable to worms, treat as directed for worms in this Chapter. In all cases add to one quart of drinking water, which should be boiled, a teaspoonful of sulpho-carbolate of zinc. Restrict the bird to a bread and milk diet alone for several days, removing all grit out of reach.

Epilepsy.—This affection takes the form of spasms or convulsions, the bird often falling about, the appetite remaining good. These epileptic fits are due to a rush of blood to the head, and can be attributed to an over-fat condition, or when overcrowded in filthy and badly-ventilated houses. Holding the bird's head under a stream of cold water for a few moments will often arrest the disease. If the bird is then isolated, and fed sparingly on soft food for a few days, recovery may be anticipated. Should this fail, bleed the bird by making an incision under the wing, or the comb or wattles may be cut to draw blood and relieve the tension on the blood-vessels. After relieving the bird, it should be given 2 grains of bromide of potassium every three or four hours, and housed in a secluded spot, reducing the quantity of food given, adding each day to the soft food a pinch of Epsom salts, and encouraging the bird to take plenty of exercise.

Eruptions.—The Fowl suffering from this disease has a white scurf over the head and comb, often the neck being quite denuded of feathers. This is often traceable to filthy houses, decayed food, impure water, and overcrowding. It is easily treated, however, by giving a teaspoonful of castor oil inwardly, treating the eruptive mass outside with vaseline, feeding the bird on good, wholesome food, and placing a little iron tonic in the drinking water.

Feather-eating, though not exactly a disease, is worthy of a place in this Chapter. This is often caused by laziness on the part of the birds and also the owner—over feeding and crowded flocks, nothing to do for a living but to bolt the food in the shortest possible time that the careless owner or feeder supplies in such generous quantities, allowing them to stand around ready for mischief, and develop this disgusting habit. The person who overcrowds the Poultry, whether in the house or run, allows lice to get a lodging place upon the Fowls. Lice eggs are commonly laid upon the fluff near the vent. The lice irritate that part of the body, and in picking at the lice and "nits," the hen gets a taste of the substance in the shafts of the feathers. Other hens notice what is taking place, and take a hand in helping to remove the feathers, cocks often standing while the hens literally pluck them alive. Birds that have contracted this depraved habit, even if

prevented from following it for a time, will begin again on the least opportunity. Birds that have contracted the habit should have a piece of wire passed through the mouth, and fixed either through the cartilage of the nostrils, or through the base of the comb, so that it cannot be removed. This will generally effect a cure. The birds should be fed on a lighter ration than ordinary, and compelled to scratch for all grain, which should be buried, at the same time thoroughly dusting the birds with insect powder to remove all lice, again repeating occasionally to destroy all lice hatched from the eggs on the roots of the feathers, which could not be removed by the first or second application. If after this one or two should still remain inveterate feather-eaters, they should be killed, as the example set by them would again encourage the other birds.

Fractures.—Except in instances where the shank or toes are broken very little can be done, the bones setting in a more or less awkward and noticeable position. If a valuable bird, this does not matter greatly for breeding, though spoilt for showing. Where a simple fracture occurs, bandaging the part with splints, and brown paper saturated with the white of an egg, is the best plan, though Poultry, being so active and energetic in their habits, offer little encouragement to the would-be surgeon's efforts. Birds of the common sorts are scarcely worth taking the trouble with.

Gapes.—This disease is caused by the irritation of the lining of the windpipe, and is aggravated by the blood lost in supporting the life of the parasite. This parasite is a worm, known as *Syngamus Trachealis*, and is introduced from a previous case. This worm has been known and written about for over one hundred years. It annually causes the death of millions of wild birds and chickens, and when present in a flock very little hope of recovery can be anticipated unless treated. The disease is more virulent in warm and damp weather, and encouraged by damp and filthy houses and wet clayey soil. It is almost certain that the worm, or eggs, must be brought from infected soil, or by an infected bird before it will manifest itself, and it is quite possible that this worm is a natural parasite of the common earth-worm; in any case, it is found in earth-worms at all seasons of the year in infected parts. The growth of these worms is marvellous. Newly-hatched embryos introduced into a chick will be found full-grown Gape worms in eight days. The full-grown Gape worm is about one-half inch in length, and what appears to be a double-headed worm is actually two worms permanently united for breeding. The worm takes a reddish colour, owing to the bird's blood, upon which it thrives. The first symptom of Gapes is a slight cough. This is soon followed by the symptom that gives the name to the trouble—*viz.*, gaping, or gasping for breath. As the worm continues to live on the mucous membrane of the windpipe, it irritates the lining, causing a catarrhal discharge from the mouth; the lining thickens, the mucus becomes stringy, the windpipe is nearly filled with mucus, and the bird has extreme difficulty in breathing. If not suffocated at this stage, inflammation extends to the lungs, causing death quickly. A post mortem examination will show the presence of worms in the windpipe, clearly exhibiting the difference between bronchitis and pneumonia, which are often supposed to be gapes. This is a difficult and very serious disease to handle. The same worm if located in the bowels or skin would cause less trouble in dealing with it; but the windpipe being so small, makes it difficult to treat, as any operation on the lining of the windpipe increases the hazard of treatment. Garlic, turpentine, carbolic acid, onion tops, asafoetida, placed in the drinking water, have been used with some success. Air-slaked lime, carbolic acid fumes, or the steam from boiling vinegar are all advocated by different writers. To remove the worms from the throat, the best plan is to use a piece of wire, with horsehair, bent into loops, fastened at the end. This is carefully introduced into the windpipe, turned once or twice, then withdrawn. The worms become entangled in the loops, and are thus extricated. This is a slow process, and only worth following where three or four valuable chickens are affected. Another plan is to have a box, with a door at the side, and covered over the top with coarse cloth. Place the chickens in the box, and dust the top of the cloth with air-slaked lime. By the chickens breathing the lime dust thus caused the worms relax their hold upon the membrane, and are ejected by the coughing of the birds. The same class of box can be used in treating with carbolic acid. This box should have a platform, made of laths, fixed at the height of a foot from the bottom, to accommodate the birds, placing a red-hot brick on the bottom of the box, underneath the laths,

pouring a spoonful of carbolic acid upon the brick. Two or three applications will kill the worms, but the greatest care must be taken that the chickens are not suffocated. Placing a feather or camel's hair brush, dipped in oil of turpentine or paraffin, is an effectual remedy, but a very dangerous one. If any improvements are needful in the sanitary arrangements of the house or surroundings, they should be immediately done, and the birds should not be crowded, adding to the drinking water one teaspoonful of carbolic acid to each gallon, feeding the chickens with as much onion as they will eat. Treat all diseased birds until thoroughly cured, *killin*g all worms that are extracted, and *burnin*g the birds that die. To treat a case of pneumonia or bronchitis with carbolic acid or lime in error for Gapes would be certain death. The presence of the worms themselves is the only sure "sign," or evidence, that the birds are suffering from "Gapes."

Gastritis.—This is an inflammation of the second stomach, or enlargement of the œsophagus just before it empties into the gizzard. It may be caused by long-continued over-feeding, by irritant substances, or by the use of too much spices and condiments. The symptoms are constipation alternated with diarrhœa, great general weakness, rapid breathing, and poor appetite. To treat, remove cause if at all possible to discover it, giving rice water to drink, to which has been added one grain of arsenite of copper to each quart of the rice water, feeding on a spare diet, to which may be added a little quinine,

Gout.—This may be distinguished by the legs and feet feeling hot, and with a swollen and inflamed appearance. The bird should be housed in a warm, dry place, giving a $\frac{1}{2}$ teaspoonful of Epsom salts, after which a half-grain pill of extract of colchicum should be given twice daily. The legs and joints should be well rubbed with eucalyptus oil each day, feeding the bird on plain, soft food, and with an ample supply of green food, adding a little iron tonic to the drinking water.

Indigestion, or *Dyspepsia*, arises from the result of mistakes in careless feeding, or housing of the birds. Fowls fed in small yards should have time to digest one meal before another is given. Young chickens ought not to be fed oftener than every two hours, and grown birds need only two meals per day if green food is supplied additional at mid-day. Want of exercise in small pens, or want of opportunity to seek for grain or insect life, is a prime factor in causing indigestion. *The entire absence of green food will in a short time develop dyspepsia*. In the latter condition the bird's appetite becomes changeable, constipation common, and the general appearance of the bird dull and listless. Good housing, pure water, regular feeding of correct food, plenty of grit and exercise will cure nearly every case of indigestion. A teaspoonful of sulphate of magnesia to each pint of the drinking water given for a week, and then changed to the iron tonic, will greatly assist recovery.

Leg Weakness.—This the majority of young birds of the heavy breeds are distinctly liable to, the cockerels more especially suffering. This is caused by too rapid growth of flesh in proportion to bone formed, with the consequence that the bird's legs give way, and if not immediately treated, or allowed to squat about on the damp grass or ground, often results in permanent injury. The birds affected should be fed liberally with good food, to which may be added bone-forming material, such as bone dust or green cut bone, with a little fresh meat minced daily, and a half-teaspoonful of Parrish's Chemical Food given night and morning for about three days; then, missing a day, again repeating, keeping the bird while under treatment in a perfectly dry house or run. This is not a disease, and is easily cured if treated within a reasonable time; if neglected for a longer period, permanent distortion of the knee joints takes place, the bird being disfigured for life.

Lice.—There is a considerable amount of knowledge yet to be learned about the insect pests which, under certain circumstances, infest all varieties of Poultry. There is nothing yet known about the period of incubation of lice eggs, which may be found in a badly-infested specimen in clusters at the fluff and roots of feathers, especially above the throat and neck, vent and under parts. If it were known how long those eggs must lie there before they hatch, and how long is the "period of infancy," *i.e.*, what period elapses between the hatching of the lice eggs and the arrival at maturity to produce more eggs, it would then be an easy matter to take measures to destroy them. It is an undoubted fact that 90 per cent. of the deaths in chickenhood are directly traceable to lice, so that the question is one which requires forethought and unremitting attention

to combat if good results are desired in the management of chickens or adult stock. Kerosening and lime-washing roosts, nest boxes, and crevices is an excellent method of eliminating the red mite ; but all this class of treatment will not reach the body lice. The only method to destroy these pests is by the use of insect powder, worked thoroughly under the feathers to the skin. This plan will kill all the lice the powder reaches ; but, then, our ignorance of the " life history " of the eggs and incubation steps in to hamper us. The tiny eggs, in clusters at the roots of the feathers, still remain to hatch by the warmth of the Fowl's body. These cannot be destroyed but by measures which would inevitably kill the Fowl also. If the " period of infancy " were known, the birds could be dusted with insect powder, so as to kill them before they matured and deposited eggs. As there is no guide at present available, we strongly advise our readers to use the insect powder on infested bird at intervals of a week to a fortnight apart, doing this three or four times, or as long as eggs can be discovered. The commonest error made by nearly everyone is to dust the birds *once*. This, no doubt, removes those that are matured, but fails to affect those eggs which hatch later, and in a few weeks, if the weather is warm, the lice are as bad as ever. To show to what an extent this pest will multiply if given an opportunity : If a person should purchase eggs, hatching them in a new incubator, rearing them in a new mother or brooder, in a new house quite away from where Fowls had ever been kept, and not allow them to come into contact with other Fowls, the chickens would not have lice, and the birds would *never* be troubled with them unless lice were introduced from some other Poultry by their clinging to the clothes of a visitor, or being dropped by a bird flying over, or in some such manner ; but if one bird is introduced to the flock suffering from lice, in a few weeks at most the whole flock would be swarming with them. In other words, there must be contamination, no less a person than the Eminent Naturalist, Charles Darwin, stating that *there is no such thing as spontaneous generation of animal life*. Neither would it be possible for the lice nits, or eggs of lice, to be brought there attached to the shells of the hen's eggs. Nature arranges things differently, by the eggs of the lice being attached to the shafts of the feathers close to the skin, so that the warmth of the Fowls body will hatch them. There is not nearly so much difficulty in coping with the red " Spider " mite, or blood-sucker. This pest hibernates in the cracks, joists, and crevices of roosts, roost supports, nests, and the walls of the house and coops, attacking the birds at night only. This insect can be easily exterminated by pouring kerosene oil over roosts, nest boxes, etc., till it penetrates every crack and crevice. The oil will kill every louse it reaches, and destroy every nit or egg. The worst of all pests is, however, the *sucker louse* or *tick*. These are found mostly on the heads, necks, and throats of chickens when the latter are a few days old. They are dark in colour, elliptical in shape, nearly an eighth of an inch in length, with legs near the head. They move very slowly, and are a variety of tick which fasten on the head of the chicken, and literally suck the life-blood away if neglected. They hold on to the flesh with such tenacity that at times it is difficult to dislodge them, and almost invariably they bring a small portion of the flesh away with them. They also seek the under parts of the body, under the wings and the vent, where the flesh and feathers are moist and the heat most concentrated. When the chicks are first hatched they quickly find their way to the soft and tender parts of the body, and are totally unlike the smaller-kinds which roam over the surface of the skin, mingle in swarms in certain spots, and are easily shaken off when the fowl dusts itself. The ticks will bury themselves partly in the flesh, making it difficult for the bird to dislodge them, and will draw their substance from the bird's flesh and blood until death takes place ; and the enormous mortality which annually takes place amongst chickens can be distinctly traced to the blood-suckers or ticks. To prevent the chickens being attacked, the hens should be thoroughly dusted with insect powder two or three times during incubation, the nest at the same time also being lightly strewn with powder. If insect powder dropped upon the heads of the chicks infested will not kill the lice, a rag dipped in kerosene, then wrung out well and laid on the head for a minute or two, will effectually remove the lice and not injure the chicken, or by applying carbolic oil as directed in Chapter VI., on the management of chickens.

Liver Disease arises from a variety of causes, indigestion frequently being the first step towards the disease, often being caused by insufficient exercise, over-feeding, exposure to damp and cold, intense heat

injuries from blows, or may be associated with scrofula and tuberculosis and persistent in-breeding. The symptoms generally noticed are sluggishness, comb white and pale, and an inclination to lameness, the evacuations at times being soft and watery, often causing the bird to defoul itself. Fowls kept in small yards and not supplied with green food have a distinct tendency to this disease, and stock bred from birds thus contaminated are prone to the same complaint. The birds affected should be removed to a quiet, warm place, and fed sparingly with bread soaked in milk, or boiled rice, avoiding cayenne pepper or stimulants of any kind. A quarter teaspoonful of Epsom salts should be given fasting each morning, and the drinking water slightly acidulated with nitric acid, in the proportion of 10 drops of the acid to each quart of drinking water.

Peritonitis.—This is an inflammation of the membrane lining the abdomen and covering the various organs that it contains, and is a common cause of death amongst Poultry. Violence from outside the body will occasionally cause the disease, but the usual cause is the rupture of the egg-passage or blood-vessels, and also pus in the cavity arising from an abscess. The symptoms are : The bird is feverish and hot, the temperature ranging from 103 to 110 degrees Fahr. The bird is restless, and appears to suffer intense pain ; the abdomen is full, hot, and very tender to the touch. As the disease progresses the bird falls on one side, with the legs drawn up close to the body ; the breath is hot, and the breathing rapid. Treatment is rarely successful, but in some instances opium given twice a day in 1-grain pills, to relieve the pain, has brought about recovery. The food should be of an animal nature, warm meat gravy, and milk in equal proportions being the best.

Pip is a symptom of some trouble with the air-passages, which compels the fowl to breathe through the mouth, and the air passing over the tongue causes the latter to become dry and scaly, and sometimes very hard at the tip. The mouth should be washed out with a weak solution of chlorinated soda, a little Epsom salts being mixed in the soft food, and iron tonic added to the drinking water. Pip is a forerunner of roup, and caused generally by exposure to damp or wet weather. The best preventive is to place 10 drops of tincture of aconite to each quart of the drinking water as soon as the Fowls are noticed to have caught cold, but on no account should the hard substance on the tongue be removed by the attendant.

Pneumonia.—This is inflammation of the lungs, accompanied by a distressing cough by which mucous is coughed up. The breathing is quick and distressed. The bird must be removed to a warm house or coop free from draught, and fed on rice and milk only, cooked and given warm, rubbing eucalyptus oil on the base of the neck and between the shoulders, *under the feathers*. If the bird is in a very weak state, raw egg or brandy and egg should be given twice per day, and under the treatment will often recover.

Prolapse.—See *Protusion of the Egg-passage*.

Rheumatism.—This is noticeable by strong contraction of the feet and toes and stiffness of the joints, and may be caused by cramp, especially in young chickens. A little nitric acid given in the drinking water, and the joints and parts affected rubbed with eucalyptus oil and wrapped in flannel, will generally improve the condition of the birds, if the latter are placed in a warm, dry house or coop.

Round Worm.—This worm is quite common amongst Poultry, but does little harm unless present in large numbers. It is found in length from half an inch to four or even five inches. It is white in colour, with a head similar to the point of a pencil, the tail being blunt and round. If a few are present no symptoms will be noticed, but when present in large numbers, and struggling for room and food, the bird will soon exhibit signs of their presence, often causing stoppage of the bowels from irritation and diarrhoea, which gradually weakens the bird. This worm is rarely thought of until death takes place, and an examination shows that they are in evidence. A worm may often be found in the droppings, but if not noticed is quickly eaten by other birds. To eradicate the worms, give every other morning for a week (fasting) a pill composed of 2 grains of santonin or enough arca-nut to cover a threepenny piece, followed an hour later with a quarter of a teaspoonful of Epsom salts. All droppings from infected birds should either be burnt or removed to a remote distance.

Roup.—This is an inflammatory disease of the larynx and trachea, and arises from various causes, such as close, vitiated air, extreme variations of temperature between day and night, damp houses, draughts, improper food, and filthy water. It is highly contagious, and excessive in-breeding conduces to the disease. Roup begins with a catarrhal inflammation of the mucous membrane of the eyes and nostrils, and is characterised by redness and swelling of the membrane, the discharge being at first watery, and quickly becomes muco-purulent. At first the discharge is thin, and breathing is not interfered with to any extent, but as the disease progresses becomes more difficult through the clogging of the throat and nostrils. At the beginning of the disease air-bubbles appear at the eyes and nostrils. The discharge quickly thickens, the exudation becomes cheesy, and from the obstruction in the throat the bird succumbs. Emaciation follows as a matter of course, owing to loss of appetite and fever. The worst cases are diagnosed by ulcers in the mouth and excessively swollen heads. A mild case will run along without treatment for some time, often becoming chronic; but a severe case, in which ulcers, swollen head and eyes are accompanied by a foul, offensive discharge, if not treated, will kill the bird in from four or five days to a fortnight. For a certain cure for roup there are as many different cures advertised as for any other known disease, but they nearly all fail. Yet much can be done to avert, and, in the early stages, to cure. Every "cold" or "slight catarrh" should be promptly treated, as, if neglected, it will often develop into this horrible disease, besides running the risk of contaminating all the stock which drink the same water, so the bird affected should be isolated at once, and the drinking-fountains disinfected with Condy's Fluid or diluted carbolic acid. If the bird has a slight attack, injection into the slit in the roof of the mouth, and into the nostrils, of a mixture composed of kerosene oil 2 tablespoonfuls, carbolic acid 3 drops, and warm water 2 tablespoonfuls, thoroughly mixed, will relieve the catarrhal condition of the mucous membrane. This should be done three times per day—morning, noon, and night—giving the bird soft food slightly seasoned with cayenne pepper, and adding iron tonic to the drinking water. To treat a serious case, in which the head and eyes are much swollen, and a thick, offensive discharge exudes from the mouth and nostrils, the bird's head and eyes should be dipped into a dish or cup containing Labarraque's Solution of Chlorinated Soda for a moment or two, wiping quite dry after each operation. This should be repeated three times per day, feeding the bird as previously described. Another excellent plan, and one which has met with great success, is to fill a tin with kerosene oil, taking the diseased bird by the legs, and immersing the head of the bird into the oil, so that the eyes are covered. This should be done in a moment, and the head, eyes, and neck wiped as dry as possible. Possibly the head feathers may come off, but if wiped properly will not do so. This should be done a couple of times per day. A bird, even if cured, should never be bred from if it has had a severe attack of roup, as the stock bred from birds once contaminated have a predisposition to the disease. Again, where the matter forms into a large lump between the eyes and beak, the simplest and most effective method is to make an incision. If both eyes are affected make two, one on each side, in a slanting direction from the base of the beak, downwards and backwards below the eye. Cut well in; do not be afraid of the bird bleeding a little. This will do good. With a blunt penknife (if the secretion is cheesy or hard) work out as much as possible; then, with a stick of lunar caustic, work well in and around the wound. This will make the head swell greatly, and if the bird is temporarily blind it will be necessary to feed by hand. The simplest manner to do this is to cut bread into cubes and soak in warm water, to which a few drops of Parrish's Chemical Food has been added. The wound must not be meddled with for at least ten days. By that time the caustic will have dried up the whole of the foreign matter, and in the majority of cases can be removed in a dry, hard, black lump. Should any white, cheesy matter still remain, treatment with the caustic will soon remove it. The bird's face will heal up without any further attention, causing no disfigurement whatever if done in anything like a careful and skilful manner.

Stringhalt.—This cannot be classed as a disease, though often found amongst highly-bred stock, especially cocks. The symptoms are a muscular contraction of the legs, and when walking the bird kicks out backwards. It is purely a nervous derangement, and no particular harm is likely to ensue, though at the same time a decidedly objectionable trait if strongly developed. We have no information at hand to state

whether it can be successfully treated or not. This derangement has a retarding effect on their procreative abilities, but birds affected are not diseased, and are perfectly good for eating.

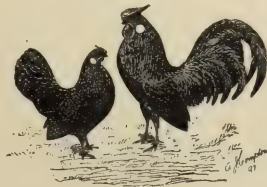
Tapeworm.—This worm is much less common than the round worm. It appears to be identical with the tapeworm found in cats (*Tœnia crassicollis*), and it is therefore highly probable that it is derived from the same source—the fluke of the liver of the mouse. Usually there are no noticeable symptoms of the presence of the tapeworm (like pieces of tape), the bird often becoming thin and emaciated from no apparent cause. If the joints of the worm are noticed in the droppings, arca-nut or santonin, as prescribed for round worm, given every other morning for a week (fasting), an hour afterwards being followed by a quarter of a teaspoonful of Epsom salts, will eject them. The droppings should be carefully examined, and, if worms are present, burned.

Testicles, Enlargement of the.—This affection is not a common one, but occasional cases are met with. A cock suffering from enlarged and congealed testicles is inclined to be quiet, and is careful not to fly up to any height, or jump to the ground, often remaining on the roost. The gait is peculiar, the body rising and falling more than is normal, the bird seeming greatly depressed. The plainest food should be given, and also a pill composed of 3 grains of iodide of potassium morning and night, housing the bird in a coop. This treatment will considerably relieve the bird, even if not completely successful in making a cure.

Vent Gleet.—This is an inflammation of the lower portion of the bowels, the expanded portion which receives both fecal and urinary discharges, resembling a certain venereal disease, and is highly contagious. The first symptom observed is a constant and frequent contraction of the end of the bowel, as if the bird was desirous of ejecting something. On examination the membrane will be found very hot, dry, and swollen. The day following a discharge takes place; at first whitish, then yellow and foul-smelling. This collects and dries around the vent, partially closing the opening. To treat this, an injection composed of 5 grains sulphate of zinc to each half-pint of water should be used daily. The bird affected should be strictly isolated, as, even with the very best attention, the disease will run a course of ten days to a fortnight.

Wry Tail.—To make an effective cure of wry or squirrel tail requires some surgical skill. A tail carried slightly awry, and not connected with spinal deformity, may sometimes be improved by dividing the tight tendon, that is, the one nearest the acute angle formed by the tail, or else by removing a piece of the flesh lengthways on the opposite side; as this heals the contraction of the wound formed, and, aided by a daily bending of the tail in the right direction, will assist in compelling the bird to carry its tail properly. A bird that is wry-tailed should not be used in the breeding-pen, this deformity being strongly hereditary.

It is well, in all cases of death by disease, to hold a *post-mortem* on the bird, as by this means it is often possible to ascertain the cause of death, and, if a preventable disease or complaint, will act as a guide in the management of other stock. The bird it is intended to dissect should be allowed to get quite cold and should be entirely plucked before operating.



CHAPTER XVIII.

TECHNICAL TERMS.

THE accompanying Glossary of Technical Terms, as employed by Fanciers, will be found useful to beginners :—

Artificial Selection.—This consists, in the first instance, in the arbitrary settling by man of certain characteristics which he desires to perpetuate, and the perpetuation by artificial means of these features.

Barring.—Marks or stripes across the feather, at nearly right angles to its length.

Beard.—A bunch of feathers under the throat of some varieties of Poultry, such as Polish and Houdans.

Breed.—Any race of Poultry possessing distinctive characteristics in common. A breed may contain several varieties agreeing in certain features, but differing in others.

Brood.—The batch of chickens in care of one hen.

Broody.—Applied to a hen when wanting to sit.

Carriage.—The style, bearing, or attitude of a Fowl.

Carunculated.—Covered with small, fleshy protuberances, as on the head and neck of a turkey cock or Muscovy duck.

Chick.—A newly-hatched Fowl.

Chicken.—A term indefinitely applied to any bird under one year old.

Clutch.—A term used which applies either to a brood of chickens or to the batch of eggs given one hen to incubate.

Cock.—A male Fowl *over* twelve months old.

Cockerel.—A male Fowl *under* twelve months old.

Comb.—The fleshy protuberance growing on top of the Fowl's head. The five chief varieties of comb are single, rose, pea, cling, and leaf, all others being modifications of, and classed with, them.

Condition.—Generally applied to a bird in faultless plumage ; at other times to state of health.

Crest.—A tuft or crown of feathers growing on the head ; also known as top-knot.

Crop.—The receptacle in which a Fowl's food is stored previous to passing into the gizzard for digestion.

Cushion.—The feathers covering the rump of a hen, often nearly covering the tail, as in the Cochin.

Dubbing.—Removal of the comb, earlobes, and wattles. Chiefly practised by Game and Game Bantam breeders.

Duckfoot.—The carrying of the back toe in a forward direction.

Ear-lobes.—The folds of bare skin which hang just below the ears ; by many called deaf-ears. They vary in colour, being red, white, cream-coloured, purple, and blue.

Face.—The skin growing round the eyes, and between wattles, deaf-ears, and beak.

Flights.—The flight, or primary feathers of the wing ; noticed when the wing is extended, but hidden out of sight when closed.

Fluff.—The soft, downy feathers about the thighs, and covering the posterior of the bird, and also the soft silky portion of the feathers not seen on the surface called under-feather or fluff. Chiefly developed in Cochins, Brahmas, and Langshans.

Furnished.—Used to describe when a bird has developed full plumage, comb, etc.

Gills.—This term is often applied to the wattles, and sometimes more indefinitely to the whole region of the throat.

Hackle.—The plumage on the neck of both sexes.

Hackles.—The long, narrow feathers on the neck of Fowls. Also found in the saddle of the cock; in this case called "saddle" hackles.

Hen.—A Female Fowl *over* twelve months old.

Henfeathered.—The plumage of a cock resembling that of a hen of the variety to which they belong. Also abbreviated to "Henny."

Hereditary.—The inheritance by offspring of the characteristics or likeness of their ancestors, more or less remote.

Hock.—The joint between the thigh and shank.

In-breeding.—The mating of birds which are related in blood to each other, no matter how distantly apart.

Keel.—The breast-bone, so called from its resemblance to the keel of a boat.

Knock-kneed.—A term used to express an inward turning of the hocks, by which they are brought close together, often touching.

Leaf Comb.—The two-pronged, V-shaped comb such as is seen in crested breeds, so called from a fancied resemblance to the open leaves of a book.

Leg.—In a living Fowl, this is the scaly part usually denominated the shank; in a Fowl dressed for the table, it refers to the joint above.

Leg-feathers.—Feathers growing upon the outer sides of the shanks.

Metallic.—The lustre on the plumage.

Mossy.—Indistinct and confused marking in the plumage.

Pea Comb.—A triple comb, resembling three small single combs joined together at the base and rear, being lower and narrower at the front and back than in the centre, and distinctly divided, the largest and highest in the middle, each part being slightly and evenly serrated.

Pencilling.—Small markings or stripes on the feather. These may run straight across, when they are frequently called bars, or follow the outline of the feather, taking a crescentic form, or a minute irregular marking.

Poult.—A young turkey.

Prepotency.—The power possessed by a bird of stamping his or her likeness upon the progeny of a union, to the exclusion of the likeness of the other parent.

Primaries.—See Flights.

Profile.—A direct side view, or illustration of a Fowl.

Pullet.—A Female Fowl *under* twelve months old.

Reach.—The height of a bird when standing quite erect.

Rooster.—A term used for a cock or cockerel.

Rose Comb.—A low, thick, solid comb, the upper surface of which is usually covered with small points, it generally terminates in a well-developed spike at the back.

Rust.—Reddish-brown feathers on the wing and sides of hens or pullets of some breeds, such as brown or Pile Leghorns and Game hens, also called Foxey-marking.

Saddle.—The rear portion of the back, and covering the root of the tail.

Secondaries.—The end feathers of the wing, which are visible when the wing is folded.

Self Colour.—Uniform in plumage, being applied to all solid or whole coloured birds, such as white, black, and buff.

Serrated.—The upper part of a single comb may have three to seven or more spikes, and the spaces between are called serrations.

Shaft.—The quill, or stem, running through the centre of the feather.

Shank.—The lower part of the leg covered with scales.

Shoulder Butt.—The rounded end of the wing in front.

Sickles.—The long curved outside top feathers of a cock's tail ; the smaller curved sickles being called secondary sickles.

Single Comb.—An upright comb, consisting of a thin, single, fleshy mass.

Spangling.—The distinct marking produced by a spot or splash on each feather, and differing in colour from the ground colour.

Spur.—The offensive and defensive weapon growing from the inside of the shank, chiefly developed in cocks.

Squirrel Tail.—The tail carried over the back, and projecting in front of a perpendicular line drawn from the root of the tail.

Stag.—A term used by Game Fowl Fanciers to designate a cockerel.

Stained Lobes.—The earlobes marked or spotted with another colour.

Station.—An ideal standard for Game Fowls, embodied in *style and symmetry*.

Strain.—A race of Fowls which possesses an individual character of its own, and that has been carefully bred for generations by one breeder or his successor.

Style.—The general shape and appearance.

Surface Colour.—The colour of the plumage, or feather, which shows upon the surface of a Fowl when in normal position and condition.

Symmetry.—Perfection of proportion (quite distinct from carriage). This is noticed by handling, a bird frequently being of nearly perfect symmetry, yet having an awkward carriage.

Tail Coverts.—The soft, glossy, curved feathers near the root of the tail, covering the quill feathers of the tail in cocks, being plain in hens, covering the true tail also.

Tail Feathers.—These compose the true tail, which are *inside* of the sickles and tail coverts in cocks, and inside the tail coverts in hens.

Thighs.—The joints above the shanks, called the drumstick in dressed Poultry.

Trio.—A cock or cockerel and two hens or pullets.

Under Colour.—The colour of the plumage hidden when the Fowl is in a normal position, and noticed when the surface of the feather has been lifted, applying to the down at the roots of the feathers.

Variety.—A term used to denominate Fowls possessing characteristics in common.

Venetianed.—This term is used to define the lapping over of the tail feathers.

Vulture Hock.—Stiff projecting feathers, covering the hock joint.

Wattles.—The fleshy, pendulous structures at each side of the base of the head.

Web.—This is used to define various characters. The *web* of the feather is the flat or plume portion ; of the feet, the skin between the toes ; of the wings, the triangular skin between the wings and body.

Whip Tail.—The feathers lying close together, and folding over each other.

Wing-bar.—The line of dark colour across the centre of the wings, and known as lower wing coverts, or wing-bar.

Wing-bow.—The upper side of the wing next the shoulder.

Wing-Butts.—The corners or ends of the wings, composed of the extreme edge of the shoulder and front.

Wing Coverts.—The wing-bar.

Wry Tail.—One that inclines either to the right or left, and is not carried in a straight line with the head.

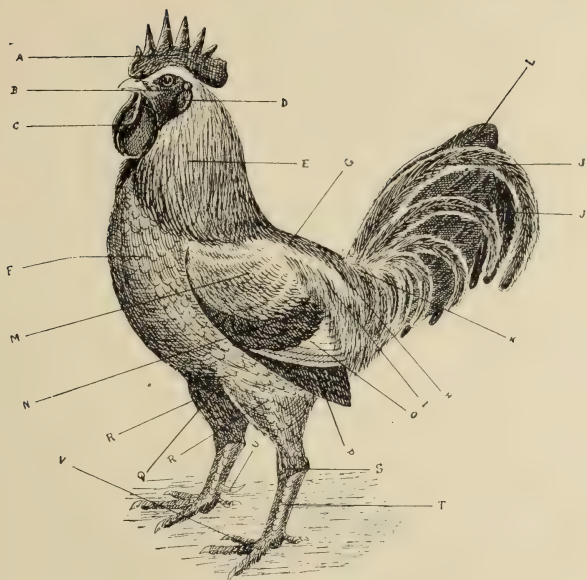


FIG. 54.—To Illustrate Nomenclature.

NOMENCLATURE.

- | | |
|-------------------|--|
| A—Comb (single). | L—True Tail. |
| B—Face. | M—Wing-bow |
| C—Wattles. | N—Wing Coverts, or Wing-bar. |
| D—Ear lobes. | O—Secondaries. |
| E—Hackle. | P—Primaries—hidden when wing is closed |
| F—Breast. | Q—Breastbone. |
| G—Back. | R—Thigh. |
| H—Saddle. | S.—Hock. |
| I—Saddle Hackles. | T—Shank, or Leg. |
| J—Sickles. | U—Spur. |
| K—Tail Coverts. | V—Toes. |



FIG. 55.—Head of Brahma Cock, showing Pea or Triple Comb.



FIG. 56.—Head of Hamburg Cock, showing Rose Comb.



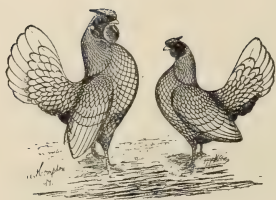
1.—Barred.

2.—Laced

3.—Spangled.

4—Pencilled

FIG. 57.—Feathers



CHAPTER XIX.

BRAHMAS.

NEXT to the Langshan it is doubtful whether any other variety of Fowl has caused more controversy, and at times angry discussion, as the History and Origin of the Brahma. Though the name denotes as if its original habitat was India, this is doubtful, it being claimed by some authorities that, similar to the Plymouth Rock and Wyandotte, the two varieties, both Light and Dark, were originated in America, from a cross with the Grey Chittagong on top of the Cochin, the former being a large variety of the Malay. One strong point in favour of the common origin of Brahmans and Cochins may be discovered in their similar osteological characters and anatomical peculiarities. The skull of the Cochin is vaulted and arched both from back to front, and side to side, and possesses a peculiarly marked groove, extending along the frontal bone, and these features every anatomist will regard as distinctly marked characteristics. In these same characteristics the skull of the Brahma and Cochin are identical, differing entirely to other pure breeds of Fowls, the latter wanting the distinguishing frontal peculiarities, and the remarkable arched or vaulted character of the head found in both these breeds.

There is little doubt that the Brahma has, to a considerable extent, deteriorated of late years as to laying qualities. When first introduced, they were good layers, but breeding so much for feather properties has, to a great extent, sacrificed their laying powers; but there is no denying the fact that their appearance is now far and away more striking in the Show pen. As a table Fowl, either pure or crossed, they take high rank, owing to their substantial size, and the excellence of their meat; and again, they are most docile and tractable (and may be kept well within bounds by the lowest of fences), are remarkably handsome in appearance, with a majestic carriage. Both the Dark and Light varieties should be identical in size, shape, and carriage, differing only in colour. Great size is, of course, a weighty consideration in breeding the variety; but forcing growth is especially to be condemned in this breed, the result too often showing itself in the plumage, which thus becomes soft and fluffy looking, as it must always be remembered that the True Brahma is a *close-feathered* breed. The general characteristics of well-bred birds exhibit themselves in the quality of head and comb, and the commanding, upright carriage. The head of the cock should be very small in proportion to the body, and when extra small, is a certain sign of high breeding. A coarse-looking head quite spoils the appearance of many an otherwise good bird. The top of the head should be rather wide, the eyebrows slightly overhanging, but not so much as to give a sour or scowling look to the face. The whole head should be rather short and well arched, a weak or snipey head quite spoiling the appearance. The comb should be triple, the centre division being the highest, and as a guide to the absolute purity of a strain, *in such this characteristic feature never varies*, though sometimes the combs will grow too large or crooked, but will still be triple if the strain is pure. An ideal comb rises from the beak to the centre, then decreases towards the back, forming an arch, the beak short and thick at the base, with rather a downward, curved appearance. The neck of the cock should be as full as possible in the hackle, and well arched; the hackle at the back of the head should start out with a very convex and clean sweep, forming a distinct depression at the junction with the head, and should be full and abundant, flowing in great profusion over the back and shoulders, thus adding greatly to the commanding appearance of the bird. The back should be wide, but very short, the saddle commencing to rise just behind the base of the neck (a flat-sided, or narrow bird, should be distinctly avoided for the breeding pen). The saddle should be broad and full, rising well towards the tail, thus adding to the proud carriage which is such a conspicuous feature of the breed. The saddle feathers should be very full and abundant, flowing well over the tips of the

secondary wing feathers. It is the tail, however, which is the most unique characteristic, though rarely ever seen in anything approaching perfection. It is best described as follows: The true or inner feathers of tail are moderately venetianed, with the exception of the top two, which should be very broad, and open out laterally, or forked, projecting through the curved sickle feathers, the latter, at times also follow this shape. The breast should be full, deep, and broad, and carried rather prominently. The shoulders should be moderately high, and slightly prominent, showing a depression between the shoulders at the base of the neck when the bird lowers his head to eat. The wings should be short, and well tucked up. The thighs should be well furnished with soft, curling feathers, neither fluffy nor loose, nor stiff and projecting. The shanks should be of fair length, strong, stout, and well covered with feathers, the latter extending down to the ends of the centre and outer toes. The feathers of the shanks and toes should stand out well. The hen in shape and carriage should correspond with the cock, making allowance for the difference of sex. The hen's head being particularly small and neat, her neck shorter in proportion to the cock, the hackle very full and spreading at the base, the back wide, flat, and short, finishing off with a moderately-developed cushion, which latter should rise right up to the tail, the tail being almost upright at the top. The other feathers composing the tail should gradually project out, each one a trifle more than the other, beginning at



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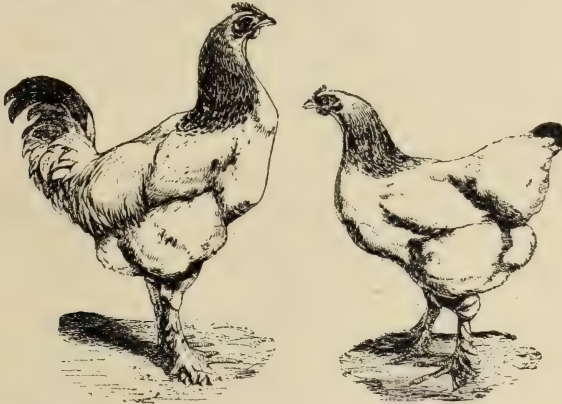
Light Brahmas of 1852.

the top, the bottom feathers thus being further behind. The wings of the hen should be short and neat, and well tucked in closely to the body, the ends being nearly buried in the cushion above and the fluff below. Breast, broad, deep, and very full; the fluff, full and abundant, and stand well out, and she should be short legged.

COLOUR OF LIGHT BRAHMAS.

Cock.—The head of the cock should be white, the hackle silvery white, each feather having a distinct black stripe down the centre. The shoulder coverts, wing-bow, back, breast, thighs and underparts should be white on the surface; but the fluff, or under-feather, right down to the skin is a dull grey. The wing secondaries are white on the outer web, and black on the inner web; the wing primaries, or flight feathers, black. The saddle feathers should be white, slightly striped with black in the centre of the upper and lower feathers. The tail coverts, glossy greenish black, the lower tail coverts being edged with silvery white. The two top sickle feathers should be glossy greenish black, finely edged right round the feather with silvery white, the true tail glossy greenish black. Beak, a rich yellow, with or without a dark stripe; legs and feet, bright yellow. Hen.—The head of the hen should be pure white, the neck hackle also pure silvery white, each feather distinctly and broadly striped with dense black in the centre, ending clear and sharp at the

points The whole of the surface body colour should be pure white, the under-feather being grey to the skin ; the wing primaries or flights, black. The tail should also be black, with the exception of the two top outer feathers, which should be black, edged right round with silvery white. She should be similar to the cock in colour of beak and shanks.



R. produced from "Tegetmeier's Poultry Book."

Light Brahmas of 1867.

In breeding this variety to feather points, the chief difficulty is to produce a sufficient proportion of black striping in the hackle feathers without black appearing throughout the body—just where not required. To breed cockerels up to Standard requirements, a cock should be chosen who has the striping in the neck hackles clearly and solidly defined, and if well striped in the saddle hackles so much the better. A bird of this



FIG. 58.—Dark Hackle Feather of Light Brahma Pullet.



FIG. 59.—Perfect Hackle Feather of Light Brahma Pullet.

description should be mated with hens light or washed out in the colour of the hackle, and pure white bodied throughout, with the exception of the tail. This is almost certain to produce a very large proportion of Standard marked cockerels (if the stock birds are well bred) ; but the pullets are almost certain to be more or less faulty in colour of back and cushion. The colour of the under-fluff of the feathers in this variety is most

important in mating, and it will be found that this varies to a remarkable extent, ranging from quite a pearly grey to a very dark colour. This becomes of value, as with two birds it is desired to mate, both appearing rather too dark on the surface to breed together for fear of producing too much marking on the progeny, if on examination, there is a marked difference in the shade of colour of the *under-fluff*, they may be mated, and success will follow; but, again, by carefully studying the shades of the under-fluff, birds may be mated which will produce a good proportion of Standard chickens of *both* sexes—a big advantage where one breeding pen only can be accommodated. To breed pullets up to Show form, a cock should be selected with rather narrow and not too distinctly marked stripes in his neck hackle, his saddle hackles being quite white, and also the leg feathering, mating him with hens almost totally black in hackle, but sound white in body colour. From this pen the pullets produced would be up to exhibition form, and, possibly, there would also be produced a fair cockerel or two.

COLOUR OF DARK BRAHMAS.

Cock.—The head of the Dark Cock is white, the hackle feathers also being white, but more heavily marked than in the Light Variety. The back is white, with stripes of black appearing irregularly. The



FIG. 60.—Neck Hackle Feather of Dark Brahma Cockerel.



FIG. 61.—Saddle Hackle Feather of Dark Brahma Cockerel.

base of the neck between the shoulders should be black, the saddle feathers being white, rather more distinctly striped with black than in the Light Variety, though for exhibition, birds with less striping than described are preferred for the Show pen. The stripes in the saddle hackles become broader and broader till they merge into the tail coverts, the latter being a brilliant, glossy, greenish black, laced all round with a thin edging of silvery white, the tail being a glossy greenish black, the top sickles being edged with white, similar to the Light Variety. The wing coverts, or wing-bar, as it is more commonly called, are a glossy black, the ends or tips of the secondary feathers each having a black spot, which, when the wing is closed form a black stripe from the wing-bar to the end of wing. The wing secondaries are white on the outer edge and black on the inner, the wing when closed appearing white in the triangular space formed. The primaries are black, except a slight fringe of white on the lower edge. In some cocks on the top of the wing-bar and down the top sides of the secondaries a brownish tinge often appears. (Birds with this feature are very useful for breeding the darker shade of pullets.) The breast should be glossy black, though slightly

mottled with white is allowable; the thighs and fluff also black, but sometimes slightly ticked with white. The shank and toe feathering should be black, but if the breast is ticked, or mottled with white, this is also allowable in the leg feathering. Hen.—Head white, or a dusky white, neck hackle white, with a distinct and well-defined stripe of black down the centre of each feather; or, if the hackle feathers are slightly pencilled up from the shoulders, this is allowable. Breast, wings, back, and cushion a good steel grey, each feather, including the leg feathering, beautifully pencilled with a darker shade; the tail feathers very dark, almost black, the top pair being edged with grey on the upper edges. In breeding the Dark Cockerels, a cock should be selected as black in the breast as possible, mated with Standard coloured hens. From this mating, if the strain is to be relied on, the cockerels will come uniformly good, and possibly some good, though, perhaps, a trifle dark pullets; but it is in breeding the Silver Show Pullets of this variety that the greatest difficulty is experienced—that is, to produce the beautiful silvery grey ground colour of the plumage with uniform and accurate pencillings. In order to form a strain for Silver Pullet breeding, it is absolutely necessary to first secure a cock or cockerel bred from a pullet strain, and at least one hen almost perfect in markings and colour. The cock to head the pen should be lightly *laced* with white on the breast, body, legs, feet and fluff feathering, the rest of the feather being as black as possible, or a bird which shows small white *spots* at the end of each feather on the breast and fluff. The neck



FIG. 62.—Faulty Cushion Feather of Dark Brahma Pullet.



FIG. 63.—Faulty Hackle Feather of Dark Brahma Pullet.

and saddle hackles of either should be well striped with narrow black stripes. (See Figs. 60 and 61.) The back and shoulders should be as clear of other colour than black and white as can be procured, but if these feathers are at all *pencilled* with black and white so much the better. The feathers at the base of the neck between the shoulders on the back should also be dense black, edged with white. The hens to mate with a bird of this description should be sound and uniform in colour, well marked, and as good on throat and breast as possible. In breeding the pullets especially it is very important to avoid a sudden cross, the invariable result, if the latter plan is followed, being to produce pullets patchy in ground colour and markings, as in Figs. 62 and 63. To breed the other recognised colours, or, in other words, various shades of the one colour, such as blue grey or steel grey, a cock should be selected a shade darker than the one used for Silvers, and with broader stripes in his neck and saddle hackles; but it must be remembered by the beginner that it is not every cock that happens to be laced on the breast and fluff (See Fig. 64) that can be depended upon as a high-class pullet breeder. He may have been produced from a badly-mated cock-breeding pen, and the use of such a bird for *pullet breeding* would court disaster. It is, therefore, safe to assume the main points in pullet-breeding cocks are not such as can be outwardly seen, but rather that these desired qualities are in the blood of the bird, and in that of his ancestors for many generations, and on both

sides. To mate with hens which fail in throat markings, the cock should be *darker* in front than behind—that is, he should be fairly sound in breast, but with *saddle* hackles *lightly* streaked, and the fluff behind well pencilled: but, on the other hand, where the hens fail in marking on cushion, the cock's saddle and tail coverts must be exceptionally well marked, and the breast have much *more* white lacing, or spotting, than the former bird. Again, however, a male bird from an established dark blue-grey strain will breed good stock from any one of the various shades of hens; but as the different shades are so hard for a novice to determine, a better guide would be to note the colour of the hens or pullets from the same yards. If there should be a wide difference between them and those of his own, the cross would be too sudden, and, probably, recourse to breeding in and in would have to be resorted to to gain the characteristics that would, with almost an absolute certainty be lost, if either strain were crossed. Another point in breeding either of the sexes in Brahmas is to place great stress on the *quality and size of the comb*, which should be as small and neat as possible, as, if this point is neglected, the stock will quickly lose one of the breed's most important characteristics.

Brahma chickens, the cockerels especially, are very ungainly and awkward when about half-grown; but, as a well-established fact, the more gawky and ungainly a cockerel is at this stage the better bird he will turn out when fully developed, the tail especially taking a very long time to arrive at full development. The chickens of the Light Variety change considerably in their plumage between the ages of three and seven



FIG. 64.—Breast Feathers of Dark Brahma Cocks for breeding Pullets.

months old, generally showing black feathers where not wanted in the fluff of the cockerels, and on the backs and cushions of the pullets in their earlier stages. This, however, may in most cases be depended upon to moult out while attaining adult plumage, so on no consideration should be discarded at this early age for this seeming defect. The chickens of the Dark Variety also undergo the same transition in plumage. Often the cockerels exhibit a lot of brown on the wings. These should not be discarded, though in their case the purer the bird is in the first feathers the better bird he will turn out. Very streaky and dark-coloured pullets may, however, safely be condemned, more especially if any patches of white or brown feathers appear; but pullets a little pale in breast will often develop the beautiful pencilling so much desired as the bird attains adult plumage, that these are worth keeping, though at the same time the best birds in the future, always exhibit the pencilling on the first feathers. Birds that are, while young, adorned with large or mis-shapen combs may with perfect safety be discarded.

For the following interesting and valuable notes on the Brahma Fowl we are indebted to Mr. W. C. Forster, of Coward Street, North Botany, N.S.W. Our esteemed contributor's success as a breeder and exhibitor of the Asiatic varieties is beyond dispute. Mr. Forster writes:—

"In giving you these notes on Brahmas I will try to be as brief and concise as possible, though at the same time a great deal might be written about their origin and the many and various stages the breed has passed through to bring them to their present high state of perfection. When I state I will be brief, I mean to give only the practical information gained by breeding the

variety for the past twelve years. The success that my birds have met with in the Exhibition pens is generally well known, and no doubt that some of the information on the mating and breeding of the variety will be of practical use to many an embryo Fancier. There is little doubt that both the Brahma and Cochin equally hold pride of place as "Fancy Fowls." Some may possibly discredit this by making the statement that they are not nearly so numerous as many other breeds, nor so generally kept. This is just the reason why they occupy the proud distinction. If they could be produced in great numbers and of a high standard of excellence, like "mushrooms"—like some of the varieties—there would be a great deal more said about it; but it is because they are extremely difficult to breed, and so hard to maintain, that so few care to keep them, and to place a good Brahma or Cochin into the Show pen as they should be exhibited, is no child's play. A good Brahma should be something massive and handsome, and well fill the Show pen. A typical one will always catch the eye, and draw forth the exclamation, "Oh, what a beautiful bird!" Of the two varieties the Darks have for a long period held pride of place, but of later years the Lights have so steadily improved and grown in general favour that they now more than hold their own. In shape, size, and carriage they should be identical, differing only in colour.

"Turning to their useful qualities for a moment, there is no doubt they are one of the hardiest constitutioned breeds of Poultry we have, being able to accommodate themselves to any surroundings, and thrive under the greatest disadvantages.



1.—Perfect Hackle.

2—Breast.

3.—Cushion.

FIG. 65.—Feathers of Dark Brahma Pullet.

"The hens lay early in the season, the eggs being of a rich brown colour, and are for the table as rich as they look. They certainly do not lay as often as some of the boomed varieties I have heard of, but lay at a time of year when *one* egg is of the full value of *three* laid at ordinary times. As chickens they grow amazingly fast, and at three or four months old provide a carcass for table requirements as fine, or finer, than most other varieties at six months old; and further, I state, without fear of contradiction, there is no better table Fowl procurable. I am qualified to offer an opinion on this head, having sampled all of the varieties classed as table Fowls. I note by the latest files of the *Feathered World*, procurable at time of writing, that in the export classes for Dead Poultry, at the London Dairy Show (the largest Show in the United Kingdom), that the Brahma-Dorking cross won first prize in the cross-bred variety class. I shall now endeavour to give an outline of what a good Show specimen should be, for this is actually what I intended to write about. Head: Short, nicely rounded, and broad across the skull; eyebrows, slightly overhanging; beak, short, stout at base, and nicely curved; comb, triple or pea, rising and widening to centre, then narrowing and falling towards the back, finishing close on the back of the head in a rounded point; deaf-ears should hang down a little longer than the wattles (I don't like them too long, as this is invariably accompanied with a coarse comb); neck, rather long, nicely arched, and broad where set on

shoulders ; breast, deep, full, and broad ; shoulders broad and well up ; back, short, and slightly hollow between the shoulders, and rising upwards into a broad saddle, the whole finishing with a broad, open, and almost upright short tail. I like to see the saddle behind as wide as the shoulders ; wings short, prominent at the butts, and the ends nicely clipped under the saddle hackles ; legs, short, stout, set on wide apart ; thighs, shanks, and feet to be fully furnished with feathers right to the ends of the centre and outer toes. The feathers on the hocks should curl round on the inside, and not stand out stiff and prominent, the latter being a great blemish, and known as vulture hocks. The eyes should be either pearl-yellow or red, (the latter preferred), the legs and beak yellow. Colour of Light Brahmās.—In both sexes. Head, white ; neck hackle, white, with a broad, dense black stripe down each feather ; throat, breast, under parts, back, thighs, and hinder parts white ; tail, black, with the sickles edged with white ; foot-feathering, slightly black ; wing-flights, lower web black, but not seen when the wing is closed up. Colour of Dark Brahmās.—Cock : Head, white or dusky white ; neck hackle, white, with a broad, distinct black stripe down the centre of each feather ; back and wing-bow, silvery white ; saddle hackle, white, with a black stripe down the centre of each feather ; breast, under parts, foot feather, and tail, glossy black. Hen : Head, white or dusky white ; neck hackle, white, with black stripe down the centre of each feather, or slightly pencilled up from the shoulders allowable ; breast, wings, back, cushion, thighs, a good steel-grey, the under parts a lighter shade ; the wings, breast, back, and cushion, and even the foot-feathering, should be beautifully pencilled with a darker shade, almost in the form of rings following the shape of the feather. In breeding Brahmās, my experience bears out to a great extent that which has been laid down by other authorities as the “Royal road to success,” but at the same time there are other methods or side roads leading up to the same desired end. By the “Royal” road, it means mating, up highly-bred birds according to the rules laid down to breed good specimens, whereas, on the other hand, where the stock available will not allow it, if a breeder applies himself to a study of his birds and their mating, good results will accrue. To do this he must not be afraid to experiment ; as, granting that he has bred the variety for some time, and has some moderate specimens among them, although they may not be up to even moderate Show calibre, he may, by a judicious selection of the stock, produce better birds each successive mating.

“I prefer to breed from birds two years old on both sides, but have seen some fine stock produced from a cockerel mated with two and three-year-old hens ; but do not advise anyone to use a cock three years old, although I must admit I have some good birds this year from such a union. I will now give my experiences in breeding both varieties of the Brahma, but find it difficult to state which is the most difficult to breed to Show requirements. There is, however, so much and good material available now, that if a little care is given to the selection and mating of the adult stock, success is within reach the first season. The stock now procurable is vastly different to what it was some years ago, though, even with the very best of stock, there is always the possibility of the union not “nicking,” or not producing results compatible with the quality of the parents, so that this has to be all gone over again, to discover which crossing or mating gives the best results. I will give an example of this. In 1893 my very best birds did not produce chickens in any way equal in foot and leg feathering, as a second pen, which themselves were more or less wanting in this respect. This showed that I had one pen of birds which were deficient in leg and foot feathering, but which produced birds excellent in the very point in which their parents were defective, so at times one has to find out by experiment a great deal in the breeding of Light Brahmās. Good birds of both sexes can at times be bred from the one pen, and, in fact, some of my very best birds of both sexes, including my two Champions of 1892, were bred from the one pen of birds ; but the stock produced came, as a rule, opposite to what I expected and mated for, that is, the breeding pen was composed of cock and two hens, and the hen that I selected to produce my cockerels, she having heavily-laced hackle, very grey in under feather, and ticked on the cushion, produced the best pullets I ever had, as well as three or four good cockerels ; and the other hen of the pen selected to produce pullets, she having nice clear, sound body colour, with a good neck hackle, produced the Champion cockerel of that year, and which turned out as good a cock as I ever had. The stock cock used in this pen was an imported bird, clear in body colour, and with a good striped hackle.

No doubt, the fact of the hen that I selected for pullet-breeding—clear-bodied, etc.—being bred from a cockerel-breeding hen accounted for the surprise. This will show that there are at times various things likely to upset calculations in breeding the two sexes, but, as a general rule, the hen that possesses a dense black stripe in hackle, very grey in under-feather, and with a more or less ticking on cushion, will breed the best cockerels, while the hen that is clear-bodied, free from any grey showing in the under-feather, and with good hackle, will throw the best pullets. A cockerel well up to Standard requirements, mated with hens as described, should breed good specimens of *both* sexes. In breeding the Darks, I am firmly of the opinion that the hens of this beautiful breed are the principal factors in successful breeding, though it is possible to breed Show cocks from hens that are worthless as Show birds; but most certainly excellent Show cocks are easier bred from good Show hens, and if these cocks so bred are again mated with Show hens the quality becomes more definitely fixed. I have mentioned these points to exhibit which is the best stock to start with, as a cock bred from an inferior hen (that is, a hen that is devoid of pencilling), no matter how good he may appear, would be of no use whatever to produce pencilling on the pullets bred from him, though he may produce an occasional Show cockerel. Touching on the generally admitted fact that it is compulsory to have two distinctly mated pens to produce the sexes in any fair proportion of excellence, I quite admit that if a breeder gives the whole of his attention to the perpetuation and improvement of either strain, for that is what it amounts to, he may, to all appearances, succeed for a time, though the cockerels bred from the pullet strain will each generation become more and more mottled on the breast and thighs. It is held that these points are necessary in the cocks used for pullet-breeding to produce the exquisite pencilling so desired; but I maintain that if this course is continued, that is, if cockerels bred from such strains are used, that the ground colour and pencilling of the pullets will soon become entirely lost, while, on the other hand, a good sound black-breasted cock bred from well marked hens will not only perpetuate the soundness of ground colour and pencilling in the pullets, but will also retain the purity of feather in the cockerels, and a good sound, deep steel-grey, well-pencilled hen will produce the best of cockerels. To sum up, if the pedigree of the birds is good, the rule that like produces like will be found an almost absolute certainty in breeding Dark Brahmas.”

For the following additional notes we are indebted to Mr. Jas. Gosling, Liverpool Road, Burwood, N.S.W., who has met with great success as a Breeder and Exhibitor of the Light Variety. Mr. Gosling writes:—

“I think I can claim to be one of the most successful breeders of Light Brahmas in Australia, birds bred by myself or from my strain having won premier honours at Sydney (N.S.W.), Melbourne (Victoria), Brisbane (Queensland), Adelaide (South Australia), Perth (West Australia), and Dunedin (New Zealand).

“The variety is one of the hardiest and most useful breeds of Poultry we have, the chickens being very easily reared if kept free from vermin and given plenty of clean sound food, clean water, a fair supply of green food, and housed properly. I usually feed the chickens on stale dry bread first thing in the morning, then about half-past 7 pollard, at 11 o'clock and 3 in the afternoon more pollard, to which has been added a little bone meal, and for the last feed at evening good sound wheat. I also find milk to which a little lime water has been added excellent if given about twice per week.

“My greatest difficulty in getting chickens early in the season is on the score of unfertile eggs, though, at the same time, chickens hatched in September fairly seem to grow as one watches them. I find, in breeding them for Exhibition, that it is difficult to get enough of the black marking in the hackle without this appearing on the body also, and also the trouble of obtaining sufficient leg-feathering for exhibition requirements. The Light Brahma is a fowl that usually improves up to the second, and sometimes the third, year. I have had birds that were not nearly fit enough for exhibition as cockerels, improve so much that they have won as cocks. The hens are fairly good layers, good sitters, and splendid mothers, and the breed's table qualities are nearly equal to that of the Turkey. I have killed young cockerels which weighed $6\frac{3}{4}$ lbs. when plucked and dressed. They are an excellent breed for crossing purposes, generally improving the size and laying qualities of most breeds, the cross with the Black Hamburg being one of the very best. The pullets of

this cross are excellent layers, and seldom evince a desire to incubate. This also applies to the Brown Leghorn cross. A friend of mine has tried the latter, and speaks in the highest terms of their economic qualities."

Our own practical experience of the Brahma has been exclusively confined to the Light Variety ; this extended over some years. We found them very hardy and easily reared, the cockerels, however, arriving slowly at maturity, looking most ungainly and awkward until fully developed, the pullets furnishing and arriving at maturity much earlier. The hens are moderate layers of rich, well-flavoured eggs, the best of sitters and good mothers. The cocks are very gallant and attentive to the hens, and at times very pugnacious if disturbed. We have seen a Light Brahma cock put to rout a Modern Game cock. The Modern or Exhibition Light Brahma with which we are acquainted is of a vastly different type to the original Brahma, and the types fostered in America and Great Britain are also somewhat different, the Australian birds being bred on the lines of the latter. The abundance of feathering on the Modern Show specimen, especially on the shanks and toes, is a more or less useless appendage when the breed is kept for utility purposes, the hens frequently, in abundance of cushion and fluff, closely approaching the Cochon type, this latter feature being quite foreign to the breed. The Light Brahma in America is esteemed for its general all-round useful properties, the hens being good layers and the cockerels excellent for table requirements. As previously remarked, they differ considerably in type from the English and Australian Light Brahmas, also being longer on the leg, tighter-feathered, and, in some high-class laying strains, with scarcely as much shank and toe feathering as the Modern Langshan. To the eye of an Australian breeder these birds look gaunt and awkward, wanting the great masses of soft feathers to round off their rather angular joints, and give them grace and beauty. The American stamp is undeniably more active, more vigorous, better foragers, and absolutely the best for utility purposes. Breeding for Exhibition points of excellence has wrecked more than one breed's utility, and this applies very strongly to most of the Australian strains of Light Brahmas. For crossing with other varieties the Brahma is a valuable variety. With the Spanish or Minorca, gives an excellent layer of large eggs ; with the Indian Game, a superlative table fowl of great size, though rather slow growth ; with the Dorking, a splendid table bird, arriving at maturity fairly early ; and with the Houdan a quickly-maturing bird with the finest and juiciest of flesh. Bred pure, and for egg-production alone, the hens will closely approach the best of the Mediterranean varieties in the quantity and weight of eggs laid per annum ; and the cockerels, though of rather tardy growth, command a good price for market. Though the Brahma will cross well with the varieties named, it is not well to cross them with the majority of other breeds indiscriminately, as the stock so bred would have a very mongrel appearance. We have, however, tried the Malay-Brahma cross, and as a table fowl it proved to be one of the finest, with immense frame and very meaty, especially on breast, thighs, and wings, some of these cross-bred cockerels weighing 9 lbs., live weight at eight months old. In colour they much resembled the Dark or Coloured Dorking. We found the pure-bred birds thrive remarkably well ; notwithstanding great variations in temperature, from extreme heat to severely cold weather, always appearing lively and active. They are a variety very suitable to the Farmer who can give them unlimited range over grass, and under these conditions will give an excellent return. No prettier or more attractive sight can be imagined than a flock of Light Brahma pullets in full feather roaming over the green sward.

SCHEDULE FOR JUDGING BRAHMAS.

GENERAL CHARACTERISTICS—COCK.

Head and Neck.—General appearance of head very short, small, and intelligent. *Beak*, short, curved, and stout at base ; *Comb*, triple or pea, the centre ridge being the highest, the whole being small, low, and set firmly on the head, the middle ridge being perfectly straight, and evenly serrated ; *Wattles*, moderate in length, thin, fine in texture, and pendant ; *Ear-lobes*, fairly large, and hanging almost level with the wattles ; *Neck*, well proportioned, nicely arched, and abundantly covered with long flowing hackle feathers, which should flow well over the shoulders and back, and come well forward ; *Body*, general shape large, deep, and full, but tight and compact ; *Back*, wide and short ; *Saddle*, broad and large, with a gradual rise



Dark Brahmas.

Bred by and the property of Mr. J. L. Hall, Kogarah, N.S.W.

HEN.

1st Prize at the Poultry Club of N.S.W., Record Show, 1877.

COCK.

1st Prize at the Poultry Club of N.S.W., Record Show, 1887.

to the tail, not forming an angle; *Wings*, small, carried closely together, and the points of the secondaries clipped under the saddle hackles; *Breast*, deep, full, and prominent; *Legs and Feet*, thighs large, and well furnished with soft curling feathers, the hocks being entirely covered; *Shanks*, moderate in length, stout set on wide apart, heavily feathered right down the outside, standing out well from the shank, the centre and outer toes also well furnished with feathers; *Toes*, large, straight, and well spread out; *Tail*, rather small, carried almost upright, the two top feathers of the true tail curving outwards; *Sickles*, short, and with a slight curve, the lesser sickles and tail coverts very abundant, almost hiding the true tail; *Size*, large, ranging from 10 to 14 lbs. in cocks, and 8 to 11 lbs. in cockerels; *General Appearance*, very compact and symmetrical; *Carriage*, upright, noble-looking, and courageous, the head being carried very high.

GENERAL CHARACTERISTICS OF HEN.

Head and Neck.—General appearance of head small, neat, and intelligent looking, with a slight fullness over the eyes; *Beak and Head*, short; *Comb*, triple, as small as possible, a large, loose, or flabby comb on the hen being a great blemish; *Ear-lobes*, well developed; *Wattles*, neat, medium in size, free from folds or twists, and nicely rounded at the extremities; *Neck*, short, the hackle very full, and quite free from twist in the feathers; *Body*, general shape square and neat; *Back*, wide, flat, and short; *Cushion*, large and broad, not of same shape as the Cochins, but rising upwards to the tail; *Wings*, moderate in size, the ends well hidden in the fluff and cushion; *Breast*, very prominent, deep, and full; *Legs and Feet*, same as the cocks, but as short as possible; *Tail*, rather short, so as not to extend much further than the extremity of the cushion, carried nearly upright; *Size*, large, ranging from 8 to 12 lbs. in hens, and 6 to 9 lbs. in pullets. *General Appearance*, massive, square, but compact; *Carriage*, quiet and dignified, the head and tail both being carried well up.

COLOUR OF LIGHT BRAHMAS.

In Both Sexes.—*Beak*, a rich yellow, with or without a stripe of horn colour; *Comb, Face, Deaf Ears, and Wattles*, rich brilliant red, as free from feathers as possible; *Eyes*, pearl, yellow, or red, the latter preferable; *Shanks*, bright yellow. *Colour of Cock*.—*Head*, silvery white; *Hackle*, white, the centre and lower feathers striped as distinctly as possible with black; *Saddle Hackle*, white, or white lightly striped with black; *Tail and Tail Coverts*, glossy greenish black, except the two top feathers, which may or may not be laced with white; *Rest of the Body Colour*, a pearly white surface colour, the underfluff of feather being more or less greyish; *Wing Secondaries*, white on the outer edges, black on the inner; *Primaries*, black. *Colour of Hen*.—*Head*, silvery white; *Hackle*, white, heavily striped, with distinct black stripes down the centre of each feather; *Tail*, black, except the two top feathers, which are edged or laced with white; *Rest of the Body Colour*, white on the surface, and greyish on the underfluff, similar to the cock in wings and leg feathering.

COLOUR OF DARK BRAHMAS.

In Both Sexes.—*Beak*, yellow, with a stripe of horn colour, or even black; *Eyes*, pearl, yellow, or red, the latter preferable; *Comb, Face, Ear-lobes, and Wattles*, rich brilliant red, as free from feathers as possible, the feathers on the throat moderately developed. *Colour of Cock*.—*Head*, silvery white; *Hackle*, white, heavily and distinctly striped with black in the centre of each feather, the shafts of the feathers to be as free from white as possible; *Saddle Hackle*, marked similarly to the neck hackle; *Back and Shoulders*, silvery white, except between the shoulders, where the feathers should be black, laced with white; *Upper Wing-butts*, black; *Wing-bow and Shoulder Coverts*, silvery white; *Wing-bar*, glossy greenish black; *Wing Secondaries*, white on outer web, black on inner web, the tip of each feather being black, forming a stripe from the top of the wing bar to the end; *Primaries*, black, with a narrow edge of white on outer web; *Breast, Under-parts, and Leg-Feather*, glossy black, or black evenly and sharply mottled with spots of white; *Fluff*, black, or black tipped with white (but as black in the breast as possible if for exhibition); *Tail*, black, richly glossed with green, the two top sickles may or may not be edged or laced with white; *Shanks*, deep orange yellow. *Colour of Hen*.—*Head and Hackle*, silvery white, heavily

and distinctly striped with black in the centre of each feather, this marking to extend well over the head; *Tail*, black, the top pair of feathers edged with grey; *Rest of the Plumage*, a silver grey, darkish grey, or steel grey ground colour, accurately pencilled in a crescentic form with steel grey, blackish grey, or black, the breast to be accurately marked, and free from streaks up to the throat, a slight tinge of chestnut not objectionable if of a rich sound colour, the leg-feathering to be pencilled as the body feathers; *Shanks*, deep orange yellow, at times inclining to a dusky tinge.

A Standard by which the Breeder may judge the value of defects in Brahmas.—

A bird ideally perfect in shape, size, colour, head and comb, cushion, or saddle, leg-feather, tail, etc., and in perfect health and condition, to count 100 points

DEFECTS TO BE DEDUCTED.

Bad head and comb	...	...	...	...	...	...	...	...	...	...	5
Scanty hackle	...	...	...	...	...	...	...	...	...	...	5
Want of cushion or saddle	...	...	...	...	...	...	...	...	...	...	5
„ „ Fluff	...	...	...	...	...	...	...	...	...	...	5
„ „ Leg-Feather	...	...	...	...	...	...	...	...	...	...	5
Vulture hocks	...	...	...	...	...	...	...	...	...	...	5
Faulty shape or carriage of tail	...	...	...	...	...	...	...	...	...	...	5
White in tail, other than the lacing on the top feathers	...	...	...	...	...	...	...	...	...	...	5
Deficiency of colour in shank and toes	...	...	...	...	...	...	...	...	...	...	5
Crooked toes	...	...	...	...	...	...	...	...	...	...	5
White in ear lobe	...	...	...	...	...	...	...	...	...	...	5
Splashed or streaky breasts in the Dark Variety, or black splashes in the Light	...	...	...	...	...	...	...	...	...	...	5
Other faults in colour	...	...	...	...	...	...	...	...	...	...	10
Want of size...	...	...	...	...	...	...	...	...	...	...	10
„ „ Symmetry	...	...	...	...	...	...	...	...	...	...	10
„ „ Condition	...	...	...	...	...	...	...	...	...	...	10

DISQUALIFICATIONS.

Crooked back, crooked breast, wry tail, duck feet, primaries twisted, knock-knees, crooked beak, or any other bodily deformity, utter absence of leg-feather, pinky-coloured, black, or green legs, large red or white splashes in the feathers of Darks, or conspicuous black *spots* on the Lights, any fraudulent dyeing, dressing, or trimming.

CHAPTER XX.

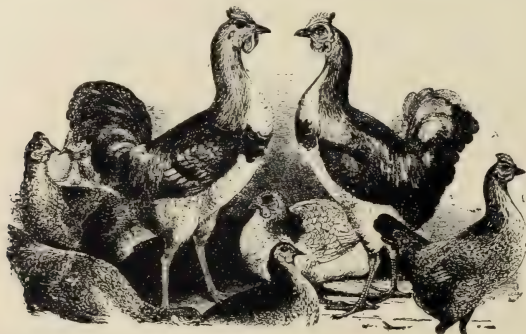
COCHINS.

THE introduction of this famous breed of Poultry to England dates back to the forties, and was largely responsible for the "mania" which seized upon the Fanciers of the nineteenth century. This craze has died out to a very great extent, but there are still many enthusiastic admirers and staunch adherents of this world-renowned breed of Fowls. That the breed possesses merits is beyond dispute, but that they have been highly exaggerated is equally true. Their extremely docile dispositions and indolent movements found them many supporters, and backed up with their beautiful plumage and grand physical and majestic proportions, possibly will account for the furore occasioned by their advent. They came upon the scene when few persons kept Fowls, at a time when Poultry Shows were an almost unknown quantity, and, in fact, the present-day enthusiasm shown in Poultry matters the world over can be distinctly traced to the advent of the lordly Cochin. In their general appearance and characteristics they are widely different from other races of Fowls, with the exception of the Brahma, to which they bear some affinity, as it is shrewdly conjectured that the latter breed is composed partly of Cochin blood. A fully-developed Cochin cock should not weigh less than from 10 to 12 lbs., but many specimens greatly exceed this latter weight, though at the same time, being clothed with such a mass of soft, loose, and fluffy feathers, actually look far larger. This massive appearance is mainly caused by the feathers being very broad across the web, and thinner and weaker in the shaft, or quill, than other varieties of Poultry. The comb is single, perfectly upright, and quite free from twists or side sprigs, and should not have the slightest tendency to fall to one side, the comb having a nicely arched outline, and neat, evenly-serrated spikes, the comb, face, ear-lobe, and wattles being very fine in texture. The head is rather small, but very intelligent in expression, and should be carried slightly forward; the neck short, the hackle feathers being very abundant, and flowing over the sides of the breast, back, and shoulders; the shoulders squarely set on, and very broad across; the breast rather high, but prominent, full, and very broad; the back short, wide, and flat across, finishing quickly into the saddle. The latter should be quite as broad as the back, beginning its rise almost from the base of the neck, gradually rising towards the tail, the tail continuing the rounded curve without the slightest break or angle. The body is short and deep, and the fluff on thighs and behind standing out in a compact, globular form, the leg and foot feathering being very abundant. The hocks should be completely covered with the softest of curling feathers (that is, quite free from stiff projecting quills), the shank feathering also abundant, and standing out well; the legs short and stout, and set on wide apart. The tail should not contain stiff quills, but composed entirely of soft curling feathers. The wings are very short, well clipped up, and the point or ends almost buried in the mass of saddle feathers above and the fluff below. The walk of the Cochin is a strong characteristic point, being slow, measured, and dignified. The hen is very similar to the cock in general conformation; but in her case the cushion corresponding to the saddle of the cock is much more fully developed, being almost globular in the fulness of outline, the fluff on thighs being also wonderfully developed. The tail of the hen is very small, and the tips of the feathers should just appear, and no more, through the cushion. In all other points she should be identical with the cock, making allowance for difference in sex.

The colours chiefly bred, and valued in the order named, are Lemon and Yellow Buffs, Cinnamons, Partridge, Whites, Blacks, Cuckoos, and there is also a sub-variety named Silky Cochins. Of these, as remarked, the Buffs are by far the most popular, and, possibly, there is no grander sight in the Poultry world than a pair of high-class specimens of this variety. Of the various shades in the Buffs, the lighter or

lemon-coloured bird is, again, the greatest favourite, and the cock of this colour should have head, neck hackle, saddle hackle, back, wings, and tail coverts a beautiful pale lemon colour; the breast and fluff, a pale buff colour. The primaries of the wings should also be a pale buff or lemon colour, quite free from any darker or lighter coloured streaks or markings. The feathers of the tail should be of a light bronzy hue, or buff, a shade darker than the feathers of the breast. The shank and toe feathering should also be of a pale buff, or lemon colour, quite free from any suspicion of white or streakiness.

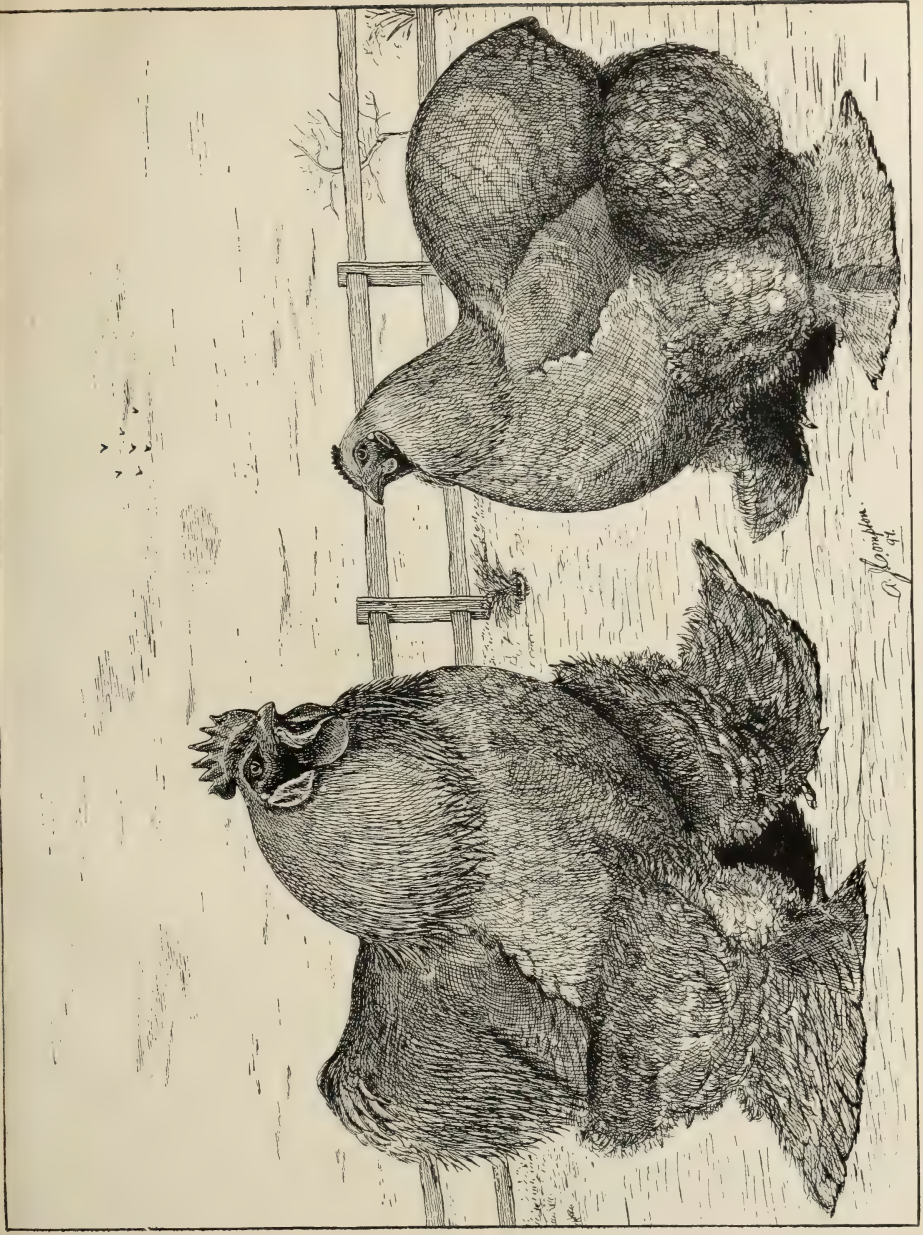
The second most important colour of the cock is the Yellow Buff. In this cock, the neck hackle, saddle hackle, back, and wings, and also the tail coverts should be a bright, deep orange; the breast and underparts, leg and foot featherings a rich yellow buff, free from any white or discoloured feathers; the tail any shade of colour, ranging from buff to dark bronze. The Cinnamon cock is of a deeper tint on back, shoulders, and wing-bow, the tail being of a deep bronze colour. The Lemon-Buff hen *should be one uniform even shade of light cane colour throughout*—body, wings, and tail. The Yellow-Buff hen *should be a good, solid, rich buff colour throughout*, with the exception of the hackle, which should be rich orange. In any of the colours dark streaks in hackle or body are serious defects, and birds with these faults should not be bred from. Size is a most important point in Cochins. By size we do not mean actual weight, though this is of some importance also. We mean depth and abundance of feather, as, unlike the Brahma, a Cochin cannot be too



Reproduced from "Vegeterier's Poultry Book."

Cochins of 1843.

fluffy and loose. The general characteristics of the cock and hen apply to all the varieties, though there are few specimens of the other colours which approach the feather development of the Buffs. One point in favour of Cochins is, that if they can be kept healthy and lively, age is no bar to their being kept for Exhibition, as the older they are the fluffier they become, and of corresponding value for Show purposes, though, perhaps, for some years the hens would not have laid a single egg. A few rules in breeding Cochins, and which apply to all the varieties of the tribe, is, first select a medium-sized cock, good in the colour required, noting especially (whether he is a Buff, Partridge, Black, or Cuckoo) *that he does not exhibit white or mealiness in the flight feathers of the wings*, as this fault is strongly hereditary, and very difficult to "breed out." Note that his wings are small, well carried up, and tucked in closely to the body; that he has a neat, straight, and evenly-serrated comb, and that there are no stains of white present in the ear-lobes. Choose hens to mate with him that are matured, *i.e.*, over twelve months old, large and square in frame, and heavily feathered, the legs set on wide apart, and the shanks strong and stout, and also that they have small, neat, well-fitting combs. The larger the *cushion* development in the hens the better. In breeding the Buffs for colour points, select a cock, as described above, of a rich buff colour, sound and even throughout, mating him with hens not lighter in colour than the cock's breast. From this



Buff Cochins.

Bred by and the Property of Mr. W. C. Forster, Botany, N.S.W.

COCK. Winner of 1st, Prizes at the Royal, Bathurst, Kiama and Moss Vale Shows, N.S.W.

HEN. Winner of 1st, Prizes at the Royal, Bathurst and Kiama Shows, N.S.W.

mating there will be some of both sexes excellent in colour, and others tending towards the Lemon or paler colours. On no account breed from birds on both sides that are inclined to mahogany colour, as the stock bred from them are almost certain to show ticks of black in hackle, back, and leg feathers.

PARTRIDGE COCHINS.

The Partridge cock should be a rich orange red in head and hackle and saddle hackle, each feather having a bold black stripe extending down the centre of the feather. The back, wing-bow, and shoulder covers are of a bright deep maroon; the wing-bar, glossy greenish-black; the wing secondaries, bay on the outer web, and black on the inner, with a black spot on the tip of each feather, forming a stripe from the upper side of the wing-bar to the end of the wing; the primaries black, with a slight edging of bay, to the two or three lower feathers. The breast, thighs, under-parts, tail, and leg feathering should be a lustrous black; the shanks and feet of a dusky yellow shade. The Partridge hens to match should have rich golden-coloured hackles, each feather being distinctly striped with black down the centre, the rest of the ground colour of the plumage a light brown, pencilled all over, each feather with crescentic markings of darker brown following the shape of the feather, as in the dark Brahma hen. This marking should extend right up to the throat, and in a good hen this pencilling extends all over the leg-feathering also. Care must be taken in not breeding from hens that are pale or clayey-looking in breast, or that are destitute of pencilling on the



FIG. 66.—Feathers of Partridge Cochins Hen for Breeding Cockerels.

feathers. In this variety it is, however, essential to mate up separate breeding pens for the production of the sexes up to Show form. To breed cockerels, a cock should be selected sound black in breast, fluff, and leg feather, with hackles of a rich red, striped as described, the colour of the hackle towards the throat being very dark red, noting well that the *web of the feather is jet black right up to the shafts*. The hens to mate with a bird of this description should be a very rich brown ground colour, the pencilling on the feathers being very minute and close, so as to appear almost wholly black—(Fig. 66)—but with a slight lacing of the lighter ground colour showing right round the extremities of the feathers on back and cushion. From this plan of mating the cockerels will be produced bright and sound in colour, the pullets, however, running far too dark for the Show pen, but of great value, again, for cockerel breeding.

To breed pullets, the cock should have a reddish orange hackle, densely striped with black, and if possessed of a few brown spots on breast and fluff will be an advantage. He should be mated with Standard marked hens as described—(Fig. 67)—that is, of a light brown ground colour, pencilled all over with crescentic markings of a darker brown, and with very little, if any, shafts of the feathers showing prominently. The pullets from this mating will turn out excellent, and the cockerels, though unfit for showing, make the best of pullet breeders for following years.

One point not to be overlooked in breeding the Partridge variety particularly, is to avoid breeding from a cock which has *white in tail*, as this defect is very difficult to eradicate when once it is in a strain.

White Cochins are a most beautiful variety, and, being self-coloured, do not offer the same obstacles to success in breeding as the other colours, though at the same time there is always some difficulty in keeping the cocks from developing a straw or pale yellow colour on the hackle and back.

In selecting the breeding stock, this latter point should be borne in mind, taking care each successive mating to select those that are of the *purest white*, when, after a few generations, if this is rigidly observed, the sun will have little or no effect on the plumage; but at the same time *all* white-plumaged Fowls should be provided with plenty of shelter from the sun's rays.

Black Cochins, like the last mentioned, also being self-coloured, are again easier to breed, though they do not appear to have made much headway in the Colonies. These are now generally shown with black legs, and thus one difficulty in past years in breeding them is removed. The glossiest black birds only should be bred from, discarding those that have a dull or brownish appearance.

Cuckoo Cochins are marked similarly to the Scotch Grey and Dominique, and the rules laid down for breeding barred Plymouth Rocks to colour points hold good in breeding the Cuckoo Cochin. That they do not approach the other varieties of the Cochin family in abundance of feather gives rise to the generally



FIG. 67.—Feathers of Partridge Cochin Hen for Breeding Pullets.

recognised belief that they were produced by crossing; but as the colour markings are not so very difficult to perpetuate, the Cochin characteristics thus should be comparatively easy to secure.

Silky Cochins are a sub-variety of the Buffs, differing from the latter in the formation of the webs of the feathers, and are looked upon as sports. The whole of the plumage is of a glossy or silky character, the webs of the feathers having no adhesion. They rarely grow to the size of the other varieties, and when wet present a most miserable and bedraggled appearance. One certain point about the peculiarity of the plumage is that it is a latent characteristic of the Cochin family, and one that by care and selection could easily be perpetuated, though at the same time scarcely worth the trouble.

As a table Fowl the Cochin is on a very low plane, but still the breed possesses merits, chief of which are their extreme hardiness, their large size, and the hen's winter-laying capabilities, and, further, the small space they require to be contented, and do well in. If kept in very confined spaces, however, they must not be fed too liberally on ordinary foods, but an unlimited supply of green food may be supplied with marked benefit to them. The breed has a distinct tendency to become too fat and lazy unless great care and judgment are exercised in the feeding. Picking out the good from the bad chickens is a somewhat difficult task; but, as a general rule, Buff chickens that are marked or streaked with black spots, or that show meanness in the wings, may with safety be discarded. Partridge cockerels, however, that exhibit a lot of

brown on breast and fluff may moult out to a perfect colour, so should not be discarded on that account. Birds that are badly twisted in comb while young may be safely condemned. The pullets intended for Exhibition should, at an early age, be placed in quarters by themselves, apart from any of the opposite sex, until after the Shows, as the plumage being of such a soft and delicate nature, quickly becomes damaged and disfigured. The hens are of such a quiet and docile disposition that, though a little clumsy in their movements, may still be claimed as among the best of sitters and mothers, the propensity to "sit" being at times a positive nuisance, but being easily broken off, will frequently begin laying again in a fortnight. As a first cross for ordinary purposes the breed is of little value, though at the same time the Cochin has played a most prominent part in the production of the majority of the Utility breeds, such as the Plymouth Rock, Wyandotte, etc.; but this has been done by judicious selection, and by using top crosses on the progeny of the first raw Cochin cross. To use a Cochin cock among a lot of ordinary barn-door fowls would certainly not produce a class of Poultry commendable from any point of view, and the use of one should strictly be avoided for this purpose.

The following notes on this variety are kindly supplied by Mr. W. C. Forster, Coward Street, North Botany, N.S.W., whose successes in the Show-pen, especially with the Partridge variety, are so well-known. Mr. Forster writes:—"To breed Buff Cochins, as there are two or three shades admissible for the Show-pen I will at once state that to breed the various shades we must be careful to mate together birds exactly alike in colour. For instance, a lemon cock should be mated with lemon-coloured hens, and a cinnamon cock with cinnamon hens. At the same time good birds may be produced from mating the different shades together, but there is far more likelihood of success attending the self-coloured matings, a greater proportion of good ones being bred in this manner. In breeding Cochins of any variety the stock must have neat combs, and be strong, healthy, vigorous birds. The cock or cockerel heading the breeding pen especially should be neat about the head and comb. In breeding the Partridge variety, as in the Dark Brahma, success depends in a great measure on the soundness and pencilling of the hens, and if the cock used to mate with them is rich and sound in colour, and was bred from a rich-coloured cock and a well-pencilled hen, this rule again being adhered to, the stock thus bred will be of good quality both sexes. Though at the same time good coloured cockerels can be bred from dark brown hens devoid of pencilling; but these cockerels, if used for breeding purposes, would destroy the lovely pencilling in the pullets bred from them. The method first given is the certain way to obtain success in breeding Show stock, and what is of more moment, will at the same time assist considerably in perpetuating the desired points of excellence. Blacks, Whites, and Cuckoos should be selected as pure in colour as possible, mating each successive year those birds of either which are the purest in feather—Blacks to Blacks, Whites to Whites, and Cuckoo to Cuckoo."

To Mr. Geo. Leeder, "The Avenue," Hurstville, N.S.W., well known as an enthusiastic admirer and breeder of the Partridge variety, we are indebted for the following notes. Mr. Leeder's experience extends over a period of six years, and he states:—

"To my mind they are the most handsome of all Fowls of the heavy breeds, and the most hardy. As a Utility Fowl they possess all the desired characteristics, the hens being good winter layers, splendid incubators, but not particularly good mothers in consequence of their great size and mass of foot-feathering, and an excellent cross for producing Table Poultry. The Partridge Cochin, from all farming standpoints, are not to be surpassed.

"I have crossed this breed with the British Game, and the cross-bred pullets have given excellent results in egg-production, with all other desired qualities. I merely mention these facts, being, perhaps, outside a Fancier's point of view; but the progress now being made in breeding Poultry for export, a hint is, I hope, not out of place. The Partridge variety is one well adapted to almost any climate characteristic to Australia, only that in the warmer parts they are liable to become broody quickly, whilst in cooler places and times of the year they lay well; in fact, during 1896 I had a pullet which laid almost daily for at least three months, became broody, hatched a batch of chickens, and was not long before she again repeated her wonderful laying performance. From a Fancier's standpoint, a well marked and coloured specimen is much

admired in the Show pen. My advice to any young Fancier or beginner in the Fancy, and their choice leaning towards the Asiatic breeds, is that they cannot do better than invest in the Partridge Cochins. In a general yard of Fowls they always particularly attract the admiration of the fair sex, and, if looked after and properly attended to, the "hobby" paying for itself is always fully assured. A few years ago I purchased a cockerel from the well-known David Jones strain, at a cost of 30s., and I won at least £10 in prize money alone, besides disposing of many of the progeny from this bird at good sums. I also established a strain which produced each year a number of good Exhibition chickens, but, alas, like many others, went for a cross of new blood, which had the effect of producing objectionable white feathers, which has taken me some years to "breed out." This appearance of white feathers in Partridge Cochins is a most singular thing. The utmost precaution and care must be exercised in the introduction of fresh blood, and, if one has a good strain, it is well to obtain a bird bred from your own strain if a cross is necessary."

In giving our own actual practical experience with Cochins, extending over seven years, which was confined solely to the Partridge variety, we found them quite up to expectations. The chickens were very hardy, and easily reared; the cockerels, like other Asiatic breeds, requiring a long time to develop; the pullets maturing much earlier. The hens were fairly good layers of rich brown-coloured eggs, but after laying from 10 to 15 eggs evinced a persistent propensity to "sit," which at times became a positive nuisance. The only plan to obviate this and work at all well was, immediately on the first symptoms of broodiness, to remove them to quite a different run or yard for a few days. This was generally successful, and, as a rule, they commenced laying again in from ten days to a fortnight.

There is much skill required in breeding the Partridge variety up to Standard requirements, but, when seen in anything approaching perfection, would be difficult to excel in the accuracy of the feather markings, the waxy lustre on the cock's hackles and back almost equalling that of the Game Fowl, whilst the markings on the hen's whole body are wonderfully accurate. We found the variety very much disposed to breed insect pests if kept in small quarters, therefore we cannot recommend them as a variety suitable for close confinement in small yards, especially in very hot districts. For colder locations there is no reason why they should not do well, and give a good return. Their constitutions were of the hardiest, or they would not have survived under the conditions we were compelled to keep them.

SCHEDULE FOR JUDGING COCHINS. GENERAL CHARACTERISTICS OF COCK.

Head and Neck.—General appearance of head neat, small, and intelligent-looking. *Beak*, rather short, stout at base, and with a downward curve; *Comb*, single, perfectly straight, evenly serrated, fine in texture, and nicely arched; *Wattles*, long, thin, fine, and pendant; *Ear-lobes* or *Deaf Ears*, of rather full development, hanging down almost on a level with the wattles; *Neck*, short, and head carried somewhat forward, the hackle very abundant, flowing well over the sides of the breast and back, the neck well curved; *Body*, general appearance large, full, and deep; *Back*, very broad, but short; *Saddle*, very large and broad, rising upward, and forming a continuous and unbroken line with the tail; *Wings*, very small, carried closely together, and well clipped up, the butts being buried in the feathers of the breast, and the secondaries partly hidden under the saddle hackles above and the fluff below; *Breast*, full and broad, and coming well down. *Legs and Feet*, thighs large, and well covered with an abundance of soft, fluffy feathers, the latter assuming a globular shape, hocks entirely covered with the softest of curling feathers, quite free from stiff quills; *Shanks*, short and stout, set on very wide apart, heavily feathered on the outside, the feathering extending down the outer and centre toes; *Toes*, large, straight, and well spread out; *Tail*, very small, the feathers being soft and silky, with scarcely any stiffness in the quills—the carriage of the tail should be nearly flat; *Size*, large, ranging from 10 to 12 lbs. or more in cocks, and 8 to 10 lbs. or more in cockerels; *General Shape*, massive and deep; *Carriage*, rather low and forward in front, high at the stern, with a measured and dignified movement.



Partridge Cochins.

Bred by and the property of Mr. W. C. Foster, Botany, N.S.W.

HEN.
Winner of 1st and Champion at the Victoria Farmers' Show and 1st Prizes
at the Royal, Bathurst and Kiama Shows, N.S.W.

COCK.
Winner of 1st Prizes at Bathurst, Kiama and Royal Shows, N.S.W.

GENERAL CHARACTERISTICS OF HEN.

Head and Neck.—General appearance of head very neat, small, and intelligent-looking. *Beak, Legs, and Feet*, same as the cock's; *Comb and Wattles*, smaller than the cock's, but similar in conformation; *Ear-lobes*, also smaller than the cock's; *Neck*, very short, carried rather forward, and abundantly furnished with hackle feathers; *Body*, general appearance large and square, the shoulders being rather prominent; *Back*, short, wide, and very flat; *Cushion*, extra broad, full, and convex in shape, beginning its rise as far forward as possible, and almost burying the tail; *Wings*, smaller than the cock's in proportion, the secondaries being almost hidden between the cushion and fluff; *Breast*, full, the breast-bone coming as low down as possible; *Tail*, very small, carried in an almost horizontal position, and the tips of the feathers just peeping through the cushion; *Size*, large, ranging from 8 to 10 lbs. in hens, and 7 to 9 lbs. in pullets; *General Shape*, massive, deep, and square; *Carriage*, low and forward in front, very high at the cushion, quiet and dignified.

POINTS OF COLOUR IN LEMON BUFF AND BUFF OR CINNAMON-COCHINS.

In Both Sexes.—*Beak*, a rich yellow; *Comb, Face, Ear-lobes, and Wattles*, brilliant red, the face as free from feathers as possible; *Eyes*, pearl, yellow, or red, the latter preferred; *Legs and Feet*, a bright yellow, exhibiting a tinge of red between the scales. *Colour of Cock*.—*Head, Hackle, Back, Wings, Shoulders, and Saddle*, any shade of lemon, gold, orange, or cinnamon, the wings to be quite free from broken markings or mealiness; *Breast and Under-parts*, any shade of lemon buff, buff, or cinnamon, providing it matches with the top colour; *Tail*, deeper in tint, often of a bronzy hue, but as free from black as possible, though in the very dark shades of buffs and cinnamons a tail quite free from black is rarely seen; white in tail in these colours is very objectionable. *Colour of Hen*.—*Body*, any shade of the colours given for the cock, as long as it is uniform in tint and free from mottling or mealiness; *Hackle*, of a slightly darker shade than the body colour, quite free from black streaks or pencilling; *Tail*, quite free from black or white feathers. When exhibited in pairs, the hen's body colour should exactly match the colour of the cock's breast.

POINTS OF COLOUR IN PARTRIDGE COCHINS.

In Both Sexes.—*Beak*, yellow, or even horn colour; *Comb, Wattles, and Ear-lobes*, brilliant red; *Eyes*, pearl, yellow, or red, the latter preferred; *Legs and Feet*, dusky yellow. *Colour of Cock*.—*Head and Hackle*, rich bright red or orange red, each feather having a bold distinct stripe of black in the centre; *Back, Shoulder Coverts, and Wing-bow*, a deep rich red or bright maroon; *Wing-bar*, a bright metallic, glossy green black; *Wing Secondaries*, rich bay on outer web, black on the inner, the end of each feather having a black spot or stripe, which forms, when the wing is closed, a distinct stripe from the wing-bar to the end; *Primaries*, black, the lower feathers having a thin edge of bay on the outer web; *Saddle*, rich bright red or orange red, a shade lighter in colour than the neck hackle; *Breast, Thighs, Under-parts, Tail, and Leg Feathers*, rich glossy black. *Colour of Hen*.—*Hackle*, bright gold, rich gold, or deep gold, with a bold distinct stripe of black in the centre of each feather right over the crown of the head; *Rest of the Plumage*, a light brown ground colour, distinctly and evenly pencilled over each feather with crescentic markings of dark brown, or even black, the pencilling being quite even and solid right up to the throat, and the leg-feathering also similarly marked.

POINTS OF COLOUR IN WHITE COCHINS.

In Both Sexes.—*Beak*, rich bright yellow; *Comb, Face, Ear-lobes, and Wattles*, brilliant red; *Eyes*, pearl, yellow, or red; *Legs and Feet*, bright yellow; *Colour of Plumage*, right throughout a perfect pure, spotless white.

POINTS OF COLOUR IN BLACK COCHINS.

In Both Sexes.—*Beak*, yellow, horn colour, or black; *Comb, Face, Ear-lobes, and Wattles*, brilliant red; *Eyes*, bright red, dark red, hazel, or nearly black; *Legs*, a dusky yellow or black; *Plumage*, right throughout a rich glossy black.

POINTS OF COLOUR IN CUCKOO COCHINS.

In Both Sexes.—*Beak*, a rich yellow or horn colour; *Comb, Face, Ear-lobes, and Wattles*, brilliant red; *Eyes*, yellow or bright red; *Legs and Feet*, bright yellow; *Colour of Plumage*, the ground colour throughout a bluish grey, barred or pencilled across with bands of a dark blue grey, the hackle and tail to be marked similarly to the body feathers.

A Standard by which the Breeder may judge the value of defects in Cochins.

A bird ideally perfect in shape, size, colour, head, comb, cushion or saddle, leg-feathering, tail, etc., and in perfect health and condition, to count 100 points.

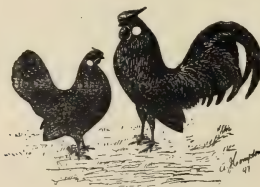
DEFECTS TO BE DEDUCTED.

Bad head and comb	...	...	...	...	...	...	...	...	...	...	5
Want of hackle	...	...	...	...	...	...	...	...	...	...	5
„ „ Cushion or saddle...	...	...	...	...	...	...	...	...	...	...	10
„ „ Fluff	...	...	...	...	...	...	...	...	...	...	5
„ „ Leg Feather	...	...	...	...	...	...	...	...	...	...	5
Vulture hocks	...	...	...	...	...	...	...	...	...	...	5
Bad shape or carriage of tail	...	...	...	...	...	...	...	...	...	...	5
White in tail (other than in White Cochins)	...	...	...	...	...	...	...	...	...	...	5
Primaries out of order	...	...	...	...	...	...	...	...	...	...	5
Crooked toes	...	...	...	...	...	...	...	...	...	...	5
Stained ear-lobes	...	...	...	...	...	...	...	...	...	...	5
Faulty colour and marking...	...	...	...	...	...	...	...	...	...	...	10
Want of size...	...	...	...	...	...	...	...	...	...	...	10
„ „ General symmetry...	...	...	...	...	...	...	...	...	...	...	10
„ „ Condition	...	...	...	...	...	...	...	...	...	...	10

100

DISQUALIFICATIONS.

Crooked back, crooked breast, primary wing-feathers twisted on their axes, wry tail, utter absence of leg feather, badly twisted or falling comb, legs any other colour than yellow or dusky yellow (except in blacks which may be black), black spots in Buffs or Whites, brown mottling (if conspicuous) in Partridge cocks, or pale breasts quite destitute of pencilling in hens, wholly white or black feathers in cuckoos. Any bodily deformity other than those mentioned; any fraudulent dyeing, dressing, or trimming.



CHAPTER XXI.

LANGSHANS.

THIS breed of Poultry is one of decidedly marked characteristics, and, probably, no other variety has called forth more heated argument and controversy on its *purity* than the Langshan. The Fowl is, without doubt, one of great merit, though its detractors would have it otherwise. On all sides we have been informed by those who have had practical experience with the breed, that as an all-round general purpose Fowl the Langshan stands pre-eminent, and we cannot do better than give our readers the expressions of prominent breeders and admirers of the variety. Separated widely apart as our contributors are, and in different Colonies, with climatic surroundings widely distinct, all agree in stating that the economic qualities of the Langshan Fowl are of the highest order.

To Mr. W. H. McKeown, of Roseville, Gordon, N.S.W., who is recognised as one of the oldest, if not the oldest, living admirer and exhibitor of the breed in this Colony, we are indebted for the following remarks. Mr. McKeown's success as a breeder of this excellent all-round Fowl has been conclusively proved in the Show-pen, birds from his yard being invincible for many years. Mr. McKeown states :—

“ That Langshans were introduced into the district of Gordon about 20 years ago, by Captain Craig, who brought them from China. They were small birds, and laid a much smaller egg than those of later or present times. A very great improvement in the breed was seen in some importations from San Francisco, California, by Mr. Cummings, of Bondi, N.S.W., who was the first to exhibit Langshans in Sydney. These birds made the *début* in the ‘New Variety’ Class. I bought all of the China strain I could get in the district ; and later, when Mr. Cummings was leaving the colony, bought up his entire stock of the breed. My first importation was from San Francisco, California. They were a short-legged and loose-feathered lot. Thinking new and improved blood necessary, I sent to Chicago, U.S.A., and obtained a cock and two hens of the ‘Paragon’ strain. For these birds the railway charges from Chicago to San Francisco amounted to fifteen dollars. The birds arrived in very poor condition, but recovered quickly, and proved a very satisfactory investment, as I was enabled to take and hold a leading position as a breeder of Langshans for many years. Later, I obtained two lots of birds from England at stiff figures, but they were very disappointing. For Show purposes and for egg-production they were decidedly inferior to my American importations.

I cannot speak too highly of the Langshan. In egg-production I have had hens beginning to lay in May, averaging five eggs per hen per week for six months without a break. No other breed that I know (and I have tried nearly every one) can come up to them in weight of eggs for the season. The eggs are rich in colour and flavour, for the table they are first-rate, both in quality and quantity. I know no better general purpose Fowl. The chickens are hardy, and easily reared, and I find no difficulty in rearing 95 per cent. of the chickens hatched.

“ From the conservatism of age, and a strong attachment to what has been *proved useful*, I have been slow to accept the ‘new’ or ‘improved’ (as it is called) Standard for Langshans. These are longer in leg and closer feathered than the old stamp of bird. Certainly, they deliver us from the old ‘Black Cochins’ controversy. Still, as one must move with the times, I have made purchases of many birds of modern style, amongst them some prize winners of ‘Andrews’ and ‘Sichlaus’ strains. With these I have had a most successful breeding season, as may be seen by yards full of very promising chickens. I have mentioned the *good* qualities of the Langshan. I have, however, *one* fault to find with them—that is, the slow and tardy maturing of the cockerels. They mature more slowly than any other breed, but make up for it in the end, and at seven or eight months old they are as large as young turkeys in size, and quite equal in flavour.”

The following remarks are kindly supplied by Mr. W. Skelton, Dunolly, Victoria, who writes :—

“ I have bred Langshans purely as a hobby for close on twelve years, and must unhesitatingly state that the Modern Langshan, *i.e.*, ‘quite up-to-date,’ is altogether a different bird to that shown ten years ago, and also a much better bird, on the grounds of appearance, quality of flesh, and egg-productiveness. I annually hatch about 100 chickens, and find no difficulty in rearing the whole of them. My poultry-man is instructed not to pamper the chickens in any way. It is a case of ‘the survival of the fittest.’ The result is that as adults they have the appearance of thoroughly sound hardy birds; and to sound constitutions I also attribute their perfect immunity from disease, for never yet have I lost birds from disease, and I do not think that any breed can claim a greater freedom from Poultry ills than the Langshan. They also breed remarkably true to colour and type, the chickens always hatching out more a yellow and slate, or black, than a self-colour, and I find that the lighter the chick in colour the better it is as an adult in ‘metallic sheen.’ My experience gives me about 5 per cent. of clean legs, and a strange fact has forced itself upon me, *viz.*, *that these clean-legged birds are otherwise invariably fine specimens, and the pullets, as a rule, grow larger than those that are up to Show requirements.* I have found them rather slow in feathering, but of late years they have much improved in this respect. As youngsters they are not at all taking in appearance, many of them being described as ‘all legs,’ and they certainly look it, but one is immediately undeceived when the bird appears dressed for the table. I must emphasise this point in the chickens, for certainly I know of no fowl—and I have sampled a good many—that is more delicious as a roast or broil than those self-same apparently ‘all legs’ Langshan chickens. The pullets I have found most prolific layers at a very early age, in fact quite as early as any of the Leghorn Family, and they ‘keep it up.’ I have many inquiries for my Langshan pullets, on account of their excellent winter and all-round laying qualities. I must admit, however, that I have carefully preserved and fostered the above characteristic, and those who know my birds will admit that size has not been sacrificed. It has been pleasing to note that the desire for loose-feathered and coarse-headed birds has been gradually overcome, and it is quite the exception now to see any of these birds exhibited in Victoria; and for the smart, upright, alert, and tight-feathered Langshan of to-day we owe much to Mr. W. T. Wright, who, in the face of big breeders, persistently awarded prizes to the nearest approach to our Modern Langshan. The much-vexed question of centre toe feather has gone overboard, for as far as I am concerned, and I also believe in many other yards the objectionable feature is now being ‘bred out.’ It is a difficult point to secure the complete feathering of the outer toe. Many of our best birds are wanting in this respect. The leg-feathering is high perfection, and with that we have almost perfect hocks. As regards head properties, I have found it difficult to secure really first-class combs. The darker the eye the better the bird looks, in my opinion, and consequently am jealous of this feature. And now for colour—after type, in my opinion, the most important point, and certainly constituting the beauty of the Langshan.

“ Colour, to a very great extent, has been carefully guarded in the pullets, but I have many times complained of the colour of the cockerels. In the latter, the tails are difficult to produce without the objectionable *purple sheen*. Many of our winning birds have been quite purple in the tail. This award, in the face of the Standard allowing for colour the highest number of points, is at once an element of danger, and we will in a very short time lose the colour, the chief beauty of the breed, if breeders do not ‘set their faces’ against the ‘purple blemish.’ We also find that great breadth of shoulders is very necessary, for there is a tendency to breed very narrow birds, with legs much too close together, and this means sacrificing table qualities. With good depth and nice length of body, and the above Show properties, we have our ideal Langshan of to-day. My birds receive no special feeding; the ordinary diet that every Fancier gives to his birds, no spices or any made foods, but vary the cereals as much as possible, *giving no maize, as I find the Langshan puts on fat internally very rapidly.* In summer I grow sorghum, and cut it up as green chaff, the birds eating it with avidity, and it does wonders for the early youngsters. I have no trouble in keeping the birds in their runs; in fact, a three (3) feet wire-netting fence keeps them out of the kitchen garden. One can easily gather from this that they are a very contented Fowl. Farmers around this district like them on these



Black Langshan Cock (Modern Type).

Bred by and the property of Mr. W. Skelton, Dunolly, Victoria.

The Winner of numerous Prizes.

grounds, as they do not destroy the stacks, but are content to forage about the ground for the tit-bits and stray grains. I have found that the best months for hatching are from June to October; hatched after the latter month they do not seem to gain headway, and I consider it waste of time to breed and expect size. I might state that this district, being a hot one, perhaps accounts for the above result. One could not wish for better sitters; some of them, perhaps, are too persistent, but my experience, happily, has been the reverse. I have bred from a four-year-old cock, and found that the eggs from this pen were well filled. No fault can be found with the breed on that score, for even though they come under the heading of 'heavy-weights,' the proportion of fertile eggs is quite up to the average."

The following remarks are added by Mr. W. F. Weeks, of Wentworth Falls, N.S.W., who is well-known as an admirer, breeder, and successful exhibitor of the variety. Mr. Weeks writes:—

"This breed came originally from the Langshan Hills, in China, and, I believe, were first introduced into England by Major Croad, although the Americans claim to have had specimens of the breed some years before, being imported from China by a Californian Fancier, whose name I have forgotten, and that birds from America were sent to England before Major Croad's importations. There is little doubt that several English breeders improved (?) the Langshan, in their idea, by introducing Cochin blood to obtain the appearance of greater size by fluffiness of feather, and a bitter battle was fought, extending over several years, between the Pure 'Chinese Langshan' and the 'Improved English Langshan' Breeders and Fanciers in England. The former, however, gained the victory, inasmuch as the very latest English Standards require birds with *tight* plumage, with little or no fluff, and other various points claimed by them. I fear, however, to obtain this result many breeders introduced Game blood, so that it became a difficult matter to obtain pure stock, except from those who were recognised as 'real cranks' on the subject. Fortunately, there were several breeders on the Pacific Slope of America, as well as some in England, who had clung to the pure Chinese type through good and evil report, and these are to be complimented in the highest degree for the many excellent specimens of tight-feathered birds, free from either Cochin or Game blood, exported to these Colonies during the past few years. The best type of birds I ever imported were from Mr. Keesling, of California, but they were not up to our idea of size, although up to the weight required by the Standard—viz., 9 lbs. for cocks, and 7 lbs. for hens. Still, they were the foundation, and as the climate here suited the breed so well, by crossing these with English-bred birds I have had cockerels at nine months old weighing 13 lbs., and pullets at the same age weighing 9 $\frac{3}{4}$ lbs. These are exceptional weights, and I find 9 lbs. for cockerels, 11 lbs. for cocks, 7 lbs. for pullets, and 8 $\frac{1}{2}$ lbs. for hens as heavy as I care for, because the excessively heavy birds are clumsy, and apt to get weak in the legs. As a generally useful bird the Langshan can hardly be surpassed. Given a good strain, there are practically 'no culls,' although, on account of the great number bred annually, some must stand out as Show specimens ahead of their fellows. The table qualities of this valuable breed are not fully recognised. They are the bearers of a large quantity of fine-grained white flesh of a very delicate flavour, and on account of the great length of breast, this part furnishes a larger proportion of meat than most breeds. Australians, I am pleased to state, are now making up to the value of the Langshan as a high-class table Fowl. As layers, I maintain they have no equal. This is a big statement to make. There may be other varieties that will lay a few more eggs in a year, though, at the same time, I doubt it; but there is no other breed that will lay the same *value* of eggs. A Farmer, who has tried and tested the Langshan fully, once remarked to me: 'Any hen will lay eggs when they are 7d. a dozen, but the Langshan is the only one I know of that will lay well when eggs bring big money in the 'Autumn and early Winter.' Some years back I made an experiment by placing 12 Langshan hens (six in each pen), keeping a record of the eggs laid from March 1st to August 31st, and although during July and August we had cold, sleety winds, and a deal of snow (the two worst months we ever had here), these twelve hens averaged 107 eggs each. My neighbours, with other various breeds, obtained very few eggs during these months. I received an average of 2s. 3d. per dozen for the eggs during this period, or nearly 20s. worth of eggs from each hen for the six months. This would be hard to beat.

"I have supplied birds of the breed to many Farmers on account of their extraordinary Autumn and Winter laying capabilities, and have many letters acknowledging the justness of my contention on this head. As regards hatching and feeding, I have found the methods stated under the heading of my contribution on Plymouth Rocks, the best for Langshans also. Many persons, when Langshan chickens are first hatched, are surprised at the colour of the chicks, expecting them to hatch *quite black*. They, however, exhibit more white or straw colour than black. The first feathers are black, but the wings show a lot of white, which disappear before they get their adult plumage. The latter should be a beautiful, lustrous, greenish black. The chicks are as hardy as possible. Langshans do not belong to the class of 'high flyers,' as the adults birds can easily be confined within bounds by 4 or 5 feet wire netting."

For the following additional notes on this highly characteristic breed we are indebted to Mr. G. M. Duncan, the Hon. Sec. of the Langshan Club of South Australia. Mr. Duncan writes:—

"Perhaps no breed of late years has come before the Poultry Fancy with such leaps and bounds of popularity as the Langshan, and, unlike many other 'boomed' breeds, which 'went up like a rocket and came down like a stick,' this noble bird has come to stay. Why? Simply because of its inherent good qualities. It will be quite unnecessary for me to say anything as to the origin of the Langshan, so much has already been written on this subject. However, for the benefit of any readers who may imagine that this breed is a modern concoction produced as the Plymouth Rock, Wyandotte, Orpington, Indian Game, etc., by the skill of some enthusiastic Poultry Breeder, I will say that the Langshan is one of the oldest breeds extant, its ancestry dating back many centuries before the Roman Game Fowls were known. A native of Northern China, the 'Jop,' or sacred bird, was held in such reverence that its figures may still be seen hewn in the rocks of the great Chinese Wall. When the Langshan was first introduced into the domain of the British Fancy its reception was not of the kindest order, for, instead of receiving the newcomer with open arms as a distinct acquisition to the Poultry World, many Fanciers openly avowed their antagonism to the breed.

"At first, when shown as Langshans they were called 'Cochins,' and when exhibited in the Cochin classes they were jeered at as being poor specimens of that breed. However, ultimately, by its intrinsic merit the bird gradually made a name for itself. To Miss Croad the Langshan Fanciers of to-day have much to be thankful for. From its first importation into England by Major Croad, in 1872, this lady has been a doughty champion of the Langshan, and has striven her hardest to keep the breed in its purity. The breed was introduced into America about 1875 by direct importation from China, and the demand for them became so strong that spurious imitations were speedily manufactured, the crosses principally used being Black Javas and Black Cochins.

"For this reason the breed was under a fog for a number of years, and the diversity of type was so great that Fanciers were in a dilemma as to which was the correct ideal to breed up to. Then the American Langshan Club was formed and Standards framed, the result being that the breed was at once placed on a proper footing, and at the present day the Langshan is one of America's favourites.

"Turning to Australia in general, and South Australia in particular, we find that the first 'Langshans' introduced into this Colony, some ten or twelve years ago, were a vastly different bird to the Langshan of to-day. Short-legged, coarse-boned, heavily-feathered birds, they showed the Cochin cross at every point, and, doubtless, had not the slightest strain of Langshan blood in them. It was not till 1892, when Messrs. Osborn and Stroud imported several birds from that well-known breeder Mr. A. E. McLennan, of Victoria, that an improvement was noticeable, and the spurious article had soon to give way to the true type of bird. Since then Messrs. D. H. Harrold, J. H. Kneebone, myself, and others have imported several lots of birds, and thus kept up the Standard of Langshans in this Colony. A few years ago the Exhibitors of this noble bird were so dissatisfied with the Judging at some of the Shows that a Club was formed to protect the interests of the breed. The Langshan Club of S.A. has done much to promote interest in the Langshan, by the publication and dissemination of the Standard all over the Colony. The Public have been educated as to the correct type of bird, and, by offering Special Prizes to Club members

for competition, the numbers of Langshans exhibited at our principal Shows have increased wonderfully. At the Annual Show of the S.A. Poultry and Dog Society in 1894, thirty-three Langshans were penned, in 1895 forty-seven, and in 1896 sixty-one birds gave the Judge some trouble in selecting the ultimate winners. As to the correct type of Langshan, unfortunately, breeders do not yet altogether agree, although there is no doubt the types of birds bred to-day by various Fanciers are manifestly much more uniform than those seen a few years ago. We have an accepted Standard, but this Standard is interpreted in many cases by each individual breeder to suit his particular Fancy. For instance, let us look at the Standard:—*Cock*: *Shanks fine in bone*. What a controversy there has been over this one point alone, some breeders going to such an extreme that they at last produced birds that were so fine in the bone that their legs could not support their bodies, with the result that they either knuckled over or became knock-kneed. All Langshan breeders will have noticed that the very light-boned cockerels never develop into anything better than weeds. By all means let us keep the shank of the Langshan distinct from that of the coarse-boned Cochin, but breeders (or judges) should choose the happy medium, and not ride the 'fine bone' theory to the death. The Standards of the Victorian and South Australian Langshan Clubs are identical with that of the English Club. *This differs only in a few minor particulars from Miss Croad's original Standard*. The American Standard varies considerably from ours, their ideal being a much more heavily-feathered bird. Compare the following; American Standard:—*Hen*: 'Fluff abundant, full in cushion,' while our Standard has it: 'Very little fluff, scarcely any cushion.'

"Recently a Standard compiled by the English Langshan Fanciers' Association was published in one of the British Poultry Journals.

"I will tabulate the principal differences:—

LANGSHAN CLUB.

COCK AND HEN.

Back.—Fairly long.

Thighs.—Rather short.

Shanks.—Rather long, fine in bone.

Hen.—Scarcely any cushion, very little fluff.

Feathering on Centre Toe.—Disqualification.

FANCIERS' ASSOCIATION.

COCK AND HEN.

Back.—Of medium length.

Thighs.—Of medium length.

Shanks.—Of medium length, stout, but not coarse; short shanks a serious defect.

Hen.—Moderate cushion; fluff fairly developed.

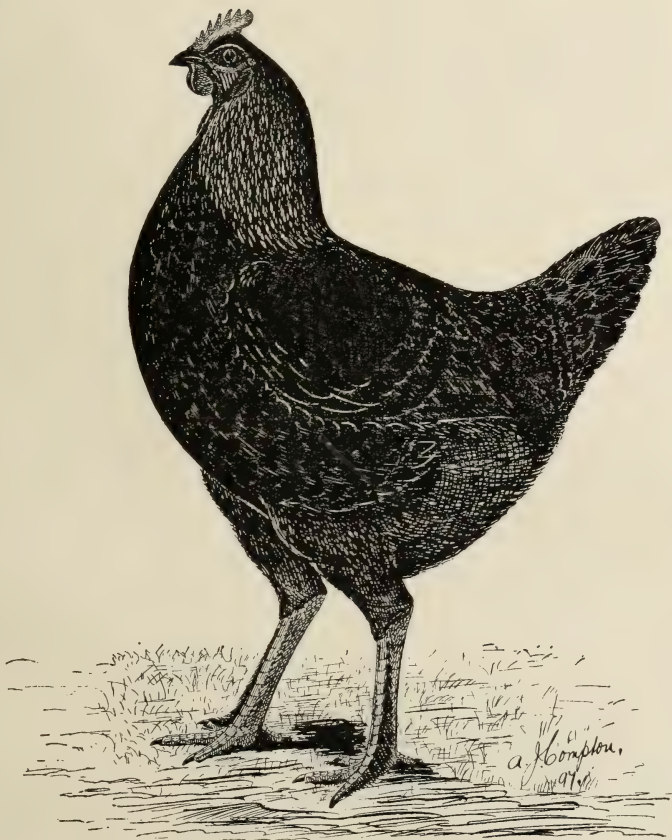
Feathering on Centre Toe.—Serious defect only.

"It will be seen that there is very little difference in the two Standards, the one issued by the Fanciers' Association evidently aiming at a bird between the English and American types. However, the Standard we have in Australia is a good one, provided Judges of the breed take a firm stand and refuse to award prizes to weedy specimens, and especially to those that are deficient in breast. The points to cultivate are:—1st. *Size*.—The Langshan is pre-eminently a noble-looking, massive bird, although its great activity takes off somewhat from its size. *I have seen prizes awarded to birds no bigger than a Minorca*. This is not as it should be, and, although we must guard against all appearance of coarseness, yet size must be kept up if the bird is to remain a favourite. 2nd. *Prominent breast and length of keel*.—Many otherwise good birds are sadly deficient in this respect, and I can call to mind several well-known winners that possessed this fault. Some birds have a distinct waist, measuring from the centre of the back to the point of breast-bone. *Such birds are useless as producers of good table Poultry, and should be discarded as breeders*. Many Fanciers do not pay sufficient attention to the length of keel-bone in the Langshan. This point is highly important in all breeds claiming the right to be classed as Table Fowls, for a bird, when on the table, should have both length and breadth of breast meat. 3rd. *Colour*.—The colour of the Langshan is one of its principal attractions. What a fine sight it is to see, say, a dozen of these noble fowls on a green lawn. Their feathers glisten in the sun like burnished metal. Breeders should reject all rusty-coloured specimens, as such are

really culls, no matter how excellent their other points may be. A Black Langshan should have *dense black under feathering*, while all the parts exposed to the sun should be of a rich metallic beetle-green shade. This 'sheen' should be even throughout, and entirely free from that objectionable purple tint often noticeable. I have seen several especially good-coloured birds in which the 'sheen' extended even down the fluff and hocks. Where birds are required for Exhibition purposes, their colour can be greatly improved by keeping them for two or three weeks in a dark place. This practice has its drawbacks, as it causes the combs to grow beyond their normal size, besides being detrimental to the bird's health. 4th. *Neat Combs*.—Many an otherwise good specimen is rendered useless as a Show bird by reason of its bad comb. Langshans—the cocks especially—seem liable to come with side sprigs on the comb. Like produces like; and so, even if these sprigs are cut off a bird, yet it is more than likely that his progeny will possess the same fault. Especial care must be taken, when selecting the breeding pens, that none of the birds have twisted or folded combs, as many of the pullets produced by such a pen would have *lopped* combs, and the cockerels' combs would have a tendency to twist. The Club Standard gives us an excellent type of bird, although, perhaps, it would be improved by one or two minor alterations. For instance, *Shanks*—'fine in bone,' might be replaced by 'stout, but not coarse,' for, as I have said before, this fine bone theory has been overdone. Then, again, in the craze for tightness of feather several defects have resulted, to the detriment of the appearance of the breed; *Straight Hocks*, which give the bird a stilty appearance; *Pinched Tails*, and consequent loss of that beautiful concave sweep of the back to the tail. Unscrupulous breeders have often crossed their Langshans with various breeds with a view of gaining certain points, and then palmed off the result as true Langshans. A keen observer can, however, detect signs of such crosses at a glance. Thus: *Minorca Cross*.—By size and shape of comb, and also is usually accompanied by a trace of white in ear-lobe. *Indian Game Cross*.—The result of this cross is a beautiful colour, the sheen coming out in a marked degree, but if the feathers are closely examined a distinct lacing of a darker shade of green is visible, instead of the feather being a solid colour. Birds of this cross usually have exceptionally broad skulls and scanty wattle. *Cochin Cross*.—Coarse bone, heavy fluff, and a sure sign by the bottoms of the feet being yellow. Although the Langshan is a prime favourite with fanciers, and a great attraction as an Exhibition bird, yet it owes its popularity to its *economic qualities*. As a table fowl it ranks high, possessing as it does size, abundance of white meat, and a thin white skin. As a winter layer it perhaps surpasses all the other breeds, producing eggs during the cold winter months, when other varieties refuse to shell out. Although the Mediterranean varieties will, no doubt, aggregate more eggs in the year, yet, if the total value were considered, it would be found that the Langshan would come out on top, for the winter eggs are the high-priced ones. Then, again, the Langshan is an extremely hardy bird, both chicks and adults thriving in whatever situation it is their fortune to be placed. In cold New Zealand, in tropical Queensland, and throughout the length and breadth of Australasia, the Langshan is found prospering. Add to all these good qualities its extremely docile temperament and its handsome appearance, what wonder is it that the most popular fowl of to-day is the lordly Langshan?

The following notes, contributed by Mr. D. F. Laurie, of Adelaide (S.A.), also fully corroborate the facts stated by Mr. W. H. McKeown, Mr. W. Skelton, Mr. W. F. Weeks, and Mr. G. M. Duncan as to the economic qualities of the Langshan. Mr. Laurie states:—

"I have a great admiration for this splendid breed, and I am only too pleased to gather, in a more or less connected statement, what I know, and have read of it. I have read much of the great controversy in the English papers, as I have taken *Poultry* for about twelve years, and for some time the old *Live Stock Journal*, the two papers in which the letters were published. Miss Croad's book gives a most accurate description of the breed and its history. Her victory is a grand one, when we remember that Mr. Lewis Wright was her chief opponent. Only those who remember how he was venerated as an infallible authority, even a few years ago, can gauge her pluck and true Fancier's spirit. Mr. Léwis Wright has had to eat the leek; the process of assimilation was very protracted, but his latest edition acknowledges the breed fully, although he has not grasped the true significance of its discovery. It would not appear improbable to any scientist, that a breed of fowls peculiar to one district only, should be the parent stock of others which while



Black Langshan Hen (Modern Type).

Bred by and the property of Mr. W. Skelton, Dunolly, Victoria.

Winner of numerous Prizes.

differing in type, etc.; had been known to us much longer. Changes of surroundings and conditions of life set their mark in a more pronounced manner, or in a shorter space of time, on fowls, than they do on animals or men, on account of the early maturity and frequent breeding, and not requiring the same lapse of time to fix a variation, or difference of structure or habit.

"To return to Miss Croad's work, she states that the first lot of Langshan's were received by the late Major Croad on the 14th February, 1872, just twenty-six years ago; and on the 16th, two days after such a journey, the hens commenced to lay. Speaking of the Langshan district, she says that in English the word means 'Two Hills,' and that the fine breed was first noticed by the officers and crew of the Lightship in 1862, who, as occasion offered, would send them to their friends in Shanghai as presents. Also note the following extract:—'Anyone who studies the chart of the Langshan Crossing, about 50 miles above Woosung, the entrance of the Hwampoo River (a tributary of the Yang-tze and district), will be at no loss to discern why, before the placing of the Lightship, Langshan was a sort of *terra incognita* to the European inhabitants of Shanghai, although the distance by that route is comparatively insignificant. There is another long and circuitous route of some hundreds of miles, and we think it probable that stray Langshans may have been brought down to the coast by this route, even in the olden time, but that Cochins were ever taken up to the district is in the highest degree improbable.' The great value of Miss Croad's work is that, up to the date of publication, nearly everything that has been written for and against the breed since its introduction is presented to the reader, and shows to what extent jealousy and ignorance will lead people. Miss Croad asserts that the birds she now breeds are similar in type, habit, etc., to those first imported by the Major, and yet Mr. Lewis Wright has endeavoured to prove that the present medium-legged bird is the result of *his* influence.

"All the authorities Miss Croad mentions seem unanimous in agreeing that the Langshan is an *original* and distinct breed of marked characteristics and prepotency—so much so, that several of them saw first crosses which did not appear to them to differ from the pure breed. That they were largely used in manufacturing the Black Cochin is also asserted. Mr. Lewis Wright, in saying that the Black Cochin breeders introduced fresh blood, did not distinguish between the two breeds. If this sort of thing was in vogue, no wonder the dividing line was slight between a half-bred Cochin in the Langshan class, or *vice versa*, as it is apparent that as the breed became popular *Langshans* were manufactured. This has been done in South Australia to my knowledge. The Langshan is considered to be the chief factor in several American breeds, such as the Black Java, etc. and perhaps, as Miss Croad states, *the reason of the Plymouth Rock being so good is the Langshan blood derived from the Black Java*. The Java is said to be made from three breeds—the Gueldre Fowl, Black Dominique, and a third unknown. Miss Croad says (page 14): 'We heard several Langshan breeders remark on the pretty little Java exhibited at the Dairy Show, 1888, and one and all gave it as their opinion that the Langshan had, without doubt, contributed the mysterious No. 3.' One interesting result—the outcome of the great Langshan-Cochin controversy—seems only dawning on the average mind, that is, the strong probability that instead of the Langshan being, as has often been stated, merely an offshoot of the Cochin tribe, *it is really the progenitor of that class of Asiatics*; and the fact that it is, and from all accounts always has been, bred to one particular type, marks its strong individuality to such an extent as to warrant this supposition. When first introduced into Southern China it is said to have much impressed the natives, being so different to the fowls found there. It is worth while for a moment to consider that the Cochin tribe exist under an *alias*. This breed never came from Cochin China at all; it came from the South of China proper, and was originally known as the Shanghai, from the name of the port the first specimens were received from.

"I feel no uncertainty in my own mind about the fact of the great antiquity of the Langshan, and consider that the Cochin tribe is nothing less than crosses between the Langshan of North China and some of the Jungle fowl that inhabited the southern portions; when, and under what circumstances, this original inter-breeding took place is a matter of pure conjecture. It must be remembered that the colours of the Cochin, as we now see them, not to mention shape, type, etc., are mostly different to those of the birds

originally imported; while, on the other hand, the Langshan, if left alone by unscientific breeders, will produce typical stock continuously. The mere fact that in its native home it is often clean-legged, to my mind in no way stamps it uncertain in its main points, because it is proved that the bare-legged birds produce a good percentage of progeny well feathered on the leg. How is it that the Langshan, alone of the Asiatics, has *fine* bone and *white* flesh? The Cochins were *yellow* skinned and fleshed. This is a point worthy of notice. It is easy to breed crossed birds with *yellow* skins, but extremely difficult to breed out the *yellow afterwards*. It is asserted that the *yellow skin and flesh* of other Asiatic Fowls point to a tropical bird, the *white skin and flesh* of the Langshan to a bird common to the *temperate*, or even *cold*, climate of Northern China. The prominent breast of the Langshan has been commented on even by Mr. Lewis Wright as a distinct and marked difference from the Cochin; in fact, in his latest edition he seems to have a glimmering of what I am hinting at. The great prepotency and vitality of the Langshan have been well observed, inasmuch as they stamp its individuality in the progeny of any cross for several generations. Miss Croad, replying to a letter from Mr. Cook in 1893, says:—'No one who knows anything about the Langshan could ever have suggested that it came from Shanghai. Those who know anything about the matter tell us that, when the birds are brought down from the Langshan district they often get mixed up through the carelessness of the Chinese 'boys.' A Langshan correspondent of mine, and an ardent admirer of the breed, sent a copy of my book to Mr. Richard Kele, who had been an old resident in China, and was, I believe, the introducer of the Pekin Duck into this country. This gentleman corrected an error into which I had fallen. He pointed out that the Langshan, as a breed, was confined exclusively to the Langshan district, and not widespread as I had supposed, and he named the date 1862 as the exact time of the introduction of the Langshan to the European community in North China.'

"In treating of the merits of this grand breed of Poultry, I do not feel called upon to make more than passing reference to the controversy which raged in England, 'Langshans *versus* Orpingtons.' I do not admit, nor do those who are more competent to pronounce judgment, that the Orpington in any way rivals the Langshan, any more than does the Plymouth Rock. I have a conservative feeling, due to the strong Fancier's instinct in me, greatly towards *pure* breeds as distinct from *made* breeds. I admire Brahmas, Plymouth Rocks, Modern Game, etc.; but I look upon them as *parvenus*, as trading on the combined merits of other breeds. The Orpington, I think, can, however, claim to have the blood of more breeds in its composition than any other made breed. He has two pure strains, the Langshan and the Minorca, and, in addition, the benefit of the several breeds composing the Plymouth Rock. In spite of this, the Langshan type and good qualities swallow and annihilate the others to a great extent, and make the Orpington what it is—a reflection of the Langshan. I do not, however, wish to cast a slur on these excellent varieties.

"For crossing, the Langshan is a most valuable Fowl. For one reason, it takes the place of the more delicate Dorking to a large extent; the main one, to my mind, that the hens are as large in frame, and better layers. The size of the progeny depends on the hen. I am satisfied on this point, and have recently read the expressed opinions of Messrs. Harrison Weir, and Tegetmeier in support; therefore, the old English Game Cock, which is a small fowl, crossed with Langshan hens, will produce a fine-sized table bird of excellent quality, and very hardy and quick growing; and as the hens are good layers, especially in Autumn and Winter, the majority of the chickens can be hatched so as to mature, and be shipped to London when prices rule highest. Of course, this also applies to all other crosses with this famous breed. I would suggest another cross which I have often thought of, and one, I believe, would prove of exceptional value, both as first and second crosses—*viz*, the Houdan cock and Langshan hen. The progeny would, probably, resemble Creve Cœurs in the main, but should be most shapely, and fine in texture of flesh. I believe the hens of this cross would suit admirably to mate with Indian Game cocks, and no doubt some of the cockerels would be of value also for crossing. As regards the Indian Game and Langshan cross, or *vice versa*, I have on other occasions predicted that they will be one of the most popular and profitable of all the crosses. They will find great favour in the English market, and will probably pay as well, if not better, than any other. This is now well proved. I am not going into the question of cross-breeding, but the pointing out

of the value of the Langshan for this purpose is fully warranted. The Indian Game-Langshan cross has already found great favour with that most rigorous of Table Fowl Judges, Mr. Tegetmeier. If one could obtain Minorcas of the original good square-bodied type, the cross between the Minorca cock and Langshan hen produces a fine table bird, which matures very rapidly. A cross between the White varieties of each breed would, no doubt, find great favour with that section of the community who object to Black Fowls and dark legs. In fact, the White Langshan crossed with White Game, or Dorkings, should be handsome as well as profitable. As a Table Fowl the Langshan has, and always will occupy a front rank, unless the breed is destroyed. Both at the Dairy and Smithfield Shows (England) they won honours.

"In a letter to *Poultry*, Miss Croad says: 'You are probably aware that during the late Crystal Palace Show in November, 1893, so much dissatisfaction was expressed at the type of bird representing the Langshan that many breeders talked of setting up a rival Club, in order to put down this objectionable type. Now, as far as I can judge, the Club has a very good President and a very good Secretary, and it seems to me that its minor differences (which, after all, are not minor) should be settled without any such flagrant breach. It would be merely a few alterations in the recent Langshan Standard, and I believe if it were acted up to, to the letter, we must all be satisfied. A few years ago a Cochin cross fought hard for pre-eminence, and in the Show-pen it certainly won. About four years ago it was brought to my notice that great efforts were being made to bring in the Game cross. The correspondent who told me of this, in his first letter, wrote to complain; but a few months later I received another letter from him, of which I give the gist. He wrote to ask me to sell him a cockerel, with short tight feathers, and with no fluff. He added that he had been successful in selling off his cockerels that season, "although he could not say they were pure." He told me he had purchased a cockerel that had thrown a good many Game chickens, but those that had come true were very nice birds; that he had sold them all through a Langshan Fancier, and that they had already been very successful in the Show-pen—these tight-feathered birds, with no fluff! Shortly after this, appeared a letter in a contemporary from one of the patrons of this cross. He declared that the long-legged, tight-feathered bird had a much better breast of full, solid meat than the short-legged fluffy bird. He added, "the flesh of the latter is far more spongy in character, and the tight-feathered birds I always find are much more hardy than the soft-feathered ones." The following year appeared another letter from this gentleman, complaining that exhibitors were making this Game mixture too strong. I have always kept the long and short legged birds in my yard, for I admire both. I consider the shorter-legged bird the Farmer's type, for it comes in earlier. But as for there being any difference in the flesh of either long or short-legged Langshans, this is mere fable. True, a young Langshan has not come to its full flavour, but even then it will compare well with other birds of the same age; from six to nine months is the age to test the full quality of the flesh. As for this Game Langshan being harder than the true, I simply do not believe it. I rarely lose a chicken by disease, my casualties are mostly young birds run down by the older ones; but I find keeping the ages and sexes separate minimises these greatly. As for the old birds, they brave all weathers. I have some roosting in a tree this winter, and a slightly frost-bitten comb to the cock is the only evil result; they are all the picture of health. When M. Boille, the French author, wrote, "That the Langshan was a delicate bird, that the chickens died off by the dozen, that they were bad foragers and voracious eaters," I wondered that no single exhibitor wrote to lift off this scandal from the breed. Within the last few years I have been in friendly correspondence with a gentleman who seems to be "in the swim," as far as the Show-pen Langshan is concerned. He strongly advises me to purchase a few birds of the winning type, in order to get into "the swim" also; and adds, with my good name, such birds would carry everything before them. I am thankful to know my name is considered an honest one, and I fervently hope to keep it so. My friend gives a rough sketch of the winning type of hen; but, taken with the written description, yet, no doubt, gives a pretty true portrait of the present fashion of Langshan. Here is his written description of the bird *verbatim*: Head gamey, eye dark, body set upon long legs, as little offal as possible; being tight-feathered like a Game, not fluffy like a Cochin; back long, and tail carried well out, not high. Now, there is probably a good deal of Langshan in the bird thus described, but the Game cross has done its work too. The Gamey head, tail

carried well out, and no fluff, tell their own tale. When one compares the Langshan with the Cochin or the Brahma, we would be inclined to say no cushion and no fluff, but both are really there. The true Langshan carries its tail high, especially in its more imposing moods. There will, then, be but a very slight incline from the top of the comb to the tip of the tail. The Langshan is a bird of many moods, and it uses the tail to express them in a remarkable way. It will carry it so low as to sweep the ground; and it will also carry it horizontally, or nearly so, but the high carriage is typical of the breed. I have seen it in no other living bird, nor in illustrations of any known breed. It is not "squirrel tail," but "unique." The Judge's *baton* would, no doubt, bring out this particular pose, which is a combination of grace and stateliness. Perhaps he may not succeed in the case of a sick bird, or one overcrowded with fat, when, of course, the movements would not be elastic; in the latter case, all idea of figure is frequently lost sight of. During the latter part of last Summer, the Autumn, and this Winter I have received letters asking me for cheap pullets. Many of my correspondents have told me that a few coloured feathers would not matter. Now, a Langshan Pullet never sports coloured feathers, and I can only come to the conclusion that the admirers of a Game cross had allowed the birds to pass out of their hands that did not, as my correspondent expressed it, come "nice," either by sale or gift, and thus the mischief has spread. The danger of entertaining these crosses as pure is this: *We can never know where it will end, or what the next move on the board will be.* As every Annual Meeting of the Club comes round, new alterations may be suggested that would improve the Langshan off the face of the earth. I earnestly entreat the Langshan breeders and members of the Langshan Club to set the matter right, and stop the fast and loose game that is going on."

"Miss Croad speaks of admiring the long legged birds as well as the short. I gather from numerous letters that she has written that she does not mean *stilty* birds, but *tall* or *long-legged* in comparison. I incline to a happy medium. Again, in a letter Miss Croad says: 'When the Langshan Club shows its desire to breed for long and yet longer legs, I decided to agree to any selection made, provided the breed was kept within the bounds of purity; but I have more than once suggested that a class should be given for the bird with a medium length of leg as a Table Fowl. The taller bird is equally good in quality of flesh, but, having bone and sinew to consider, it does not mature so early, and, therefore, does not pay its owner so well. Both are handsome birds. The latter type of Langshan is one we prognosticated would have many admirers, but we must not entirely lose sight of the useful.' A most trenchant piece of criticism on this celebrated breed appeared in *Poultry*, October 26, 1894, under the heading of 'Dots,' about the Dairy Show, England:—'After all the years belauding their merits as table and laying fowls, it was almost heartbreaking to see the pitiful array of *stork-like* birds doing duty for the breed. The boys who went about on stilts at a country fair were "low down" to some of these short tailed shanky things. Never do we remember in all our experience to have seen a worse case of "Fancier breeding" deterioration. Had such birds been those imported, we should never have written a line to induce the public to take up the breed. The Langshan Club has worked wonders. It has helped to destroy the excellency of one of the best "all-round" breeds we know. The medium, and the short-legged square-made birds with flowing tails are the Langshans to keep. These arrive at early maturity; these are the layers, and they carry the best and most breast meat, and the cocks of these are the most fertile. There is no leg-weakness in these, no sitting on their hocks like Malays, no gawky, straddling things among these close-made, square, short-legged "selections." Yes! these are the sort to keep, and not the "ostrich uglies" that are now obtaining prizes. There were a few "comely," however—one pullet in particular, but, of course, unnoticed. As we have written long for the breed, and maintained its good qualities against all comers, so we do now as faithfully warn the public *not to keep* the black storks now held to be the breed by the Langshan Club and their weak-kneed Judges. We solemnly protest against "the pattern," and prophesy that if the Judges acting in the Langshan classes persist in giving awards to the *storks*, then the day is not far distant when there will not be classes filled sufficiently to induce Committees to offer prizes for them. Many of those shown at the Dairy Show were an outrage on the breed, and we strongly advise the public to have nothing to do with such, but only buy and keep the short or medium legged birds. Better the Langshan Club had never existed than attempt to foster



Black Langshan Cock (Medium Type).

Bred by and the property of Mr. W. F. Weeks, Wentworth Falls, N.S.W.
Winner of 1st and Gold Medal, Royal Agriculture Society of N.S.W. Show, 1896.

a demand for such birds.'—(*Harrison Weir*). This strongly-expressed opinion found great favour with the Editor of the Victorian *P. and D. Gazette* (Australia), and was reproduced by him.

“Mr. Cook, of Orpington fame, writing in 1892, says:—‘Coming back to the Langshan, they are not delicate birds by any means, taking them on the whole; in fact, they are very hardy when bred properly. I may mention that it takes Langshan chickens longer to mature than it does many other breeds, on account of their large frames. They appear to make bone before putting on meat, but that does not in any way make them delicate. When they are well-bred and fattened up, one could scarcely tell the difference between a cockerel at seven or eight months old and a young turkey when placed on the table. This breed is used to improve several other varieties, and always puts constitution on the birds whenever it is used, improving them in every way as regards utility, both for eggs and table.’ This is great praise from such a source. No doubt Mr. Cook fully recognised the value of the Langshan breed when he started to manufacture the Orpington. In the Italian Diplomatic and Consular Reports on Trade and Finance, 1894 (Foreign Office), we read:—‘The importation of pure breeds is fast becoming a paying industry. Of the breeds hitherto imported, the Langshan is the best winter layer and table fowl combined, possessing the additional advantage of beauty in shape and colour; imported from England, and is a prime favourite.’ In 1882, M. P. La Pere de Roo presented Miss Crood with a copy of his ‘*Monographie des Races des Poules*,’ in which occur the following remarks on the Langshan:—‘Although the birds of this race do not always resemble each other closely, it must not be forgotten that they possess exclusive and decided characteristics common to the breed, which never vary, and are transmitted to their progeny from generation to generation with astonishing fidelity.’ Mr. Harrison Weir noticed years ago that the anatomy of the Langshan was different to that of any other breed he had ever handled. (Miss Crood’s Letter, March 9th, 1894).

“In addition to the Black Langshan we have the White and the Blue, which have both been fixed, and breed true to colour, the latter being the product of a cross between the Black and White varieties. These have both been received into the Langshan Club in England, and have many admirers. The White has been before the public for many years, but the Blue is quite a recent introduction.

“In type, shape, and general characteristics they are identical with the Blacks, the colour being in the one pure white, and in the other the slaty blue seen in Andalusians. Speaking of the Blue Langshans, Mr. W. A. Jukes says, in *Poultry* (England), February 9th, 1894:—‘The first pair of Blue Langshans I had, which I exhibited successfully at the Liverpool Show (England), were bred by Mr. Willard P. Smith, of New York (U.S.A.), and, in reply to my inquiries as to their origin, he assured me that they were composed of pure Langshan blood alone, being bred between Blacks and Whites for several generations on a system to this end, particulars of which he forwarded me. Further, he says that *on the same system he can breed Blues in any breed* in which he has Blacks and Whites to start with. Now, had these Blues been produced, as some have asserted, by a cross with the Andalusian, I should have expected to see some traces of the Andalusian parentage; but they have *all come true to Langshan characteristics*, pink skin (between the toes—D.F.L.) and all. True, they *do not follow* the Club type of Langshans, but they do adhere most closely to the older or Crood type in all save colour. Considering the very grave doubts which the adherents of the Crood type have as regards the purity of the Gamey type of bird which has received the hall-mark of the Club, for which Mr. Battersby judged, I would just remind him of the old proverb which runs, ‘People who live in glass houses should not throw stones.’ This is because Mr. Battersby called them ‘so-called Langshans.’ Writing to the *Fanciers’ Gazette*, April 27th, 1894, Mr. Jukes says:—‘The chicks all come as true as possible to every Langshan characteristic; those which come black it is impossible to tell from birds bred from Black parents. As a matter of fact, I exhibited a *Black cockerel* bred from my *Blues*, and was *highly commended with him*. The point in which the Langshan differs from every other breed, viz., the pink skin about the feet, *the Blues possess in a marked degree*. If Fanciers will consider the matter, they will arrive at the same conclusion as myself, that, had the breed been crossed with any other, especially one *so alien in every respect* as the Andalusian, it would be impossible that every chick should show this characteristic point. Yet this is the fact.’ Appended is the affidavit of Mr. Willard P. Smith, that the variety was produced by four years’

crossing the Black and White varieties, and that they do not contain a drop of Blue Andalusian or Blue Jersey blood.

"There are two sorts of Langshans in America, as far as I can judge—the true Langshan, and the American manufactured article. The latter are evidently Black Cochins, and appear to have been hit violently in the rear with the flat of a spade, like the sleep-walker in the *Ingoldsby Legends*. I fail to see where the economic points of birds of this shape can be, unless, of course, the breeder of them is prepared to run a feather pillow factory as an adjunct. It must have been of this breed that Mr. H. G. Keesling, in an American paper, the *Poultry Monthly*, speaking of a Langshan's head, says:—"The Standard says: "Of medium size, and rather broad." I would prefer a different wording, for the reason that "rather broad" is not positive enough to express the fact that the skull of a Langshan should be broad, and not narrow. It is astonishing what a difference a narrow or broad skull makes in the appearance of Langshans, and when the narrow skull is coupled with a long, deep face the effect is anything but pleasing.

"The heads of Langshans are by no means uniform in shape, and as yet little or no attention has been given to them in that particular. The comb, wattles, and ear-lobes that adorn the head receive the greater part of the attention devoted to that part of the birds. The tendency seems to be to breed smaller combs, and I think that it is a mistake. The Langshan is not a compact bird either in feather or body, although some of the later engravings would make them appear almost as hard-feathered and compact as a Game. The comb and wattles should be rather large, to accord with the long shanks and tail and loose feathering of the pure Langshan. The Langshan is not a dude in any sense, and to belittle his comb, contract his brains, and make him appear ill at ease in a close-fitting coat, is an insult to his dignity and freedom of action. The eyes are not over large, but bright, and full of expression. While the Standard calls for the most attractive colours in eyes, "dark brown, or hazel," there is still a great variance in the purest stock. With me, the black variety has the best eyes, as most of the whites have light coloured eyes. The head should not be so large as to appear coarse, nor yet so small as to appear out of place on so large a bird. Although the Langshan is a rangy bird, it is not coarse in any part of its make-up, although some would make it appear so. The carriage of the head is peculiar to the breed, and is not as upright as most engravings would have it appear. The breast does not appear prominent, for the reason that a vertical line from the point of the beak to the ground will rarely touch the breast. The Langshan has a style and carriage of its own, and there is no reason for trying to breed them in imitation of any other breed."

"What a mixture of right and wrong! In the first place, what authority ever demanded a narrow head, or a coarse head, or any other but a small head for the size of the bird, full over the eye, and free from coarseness. He is wrong in saying the head itself has had little attention paid to it. It is a most important and well-recognised point. As regards combs, we do not want Langshans with combs as long as Minorcas. We want medium size, but on no account flat. As regards the colour of the eyes, he must be optimistic if he expects to breed every bird with perfect eyes. Any tendency to coarseness has *always* met with strong disapproval from competent judges. As regards the carriage of the head, I maintain it is *upright*, and the breast of a *good bird* should have a *full, prominent* appearance. I think the attitude of alert attention is preferable to any other when depicting this breed, although no one, *except the writer of the above*, apparently thinks that is THE ONE attitude the bird can assume. As regards the chickens, my experience is that when very young they are extremely hardy, and stand cold weather very well. As they grow older they do not take to it kindly if bred very late in the season, but a little attention soon rectifies this. When first hatched, they present a most charming appearance, the black and different shades of canary being especially attractive. Mine are always hatched in an incubator, and they take to food at once. They are capital foragers, and will go anywhere in search of food. It is advisable to keep the sizes separate, as a three months' old Langshan chick stepping on a small one spreads him out like the celebrated twins under Diogenes' tub. The stilty chicks have an ungainly appearance, and, I should say, would be a long time maturing. I am glad to state I have had no practical experience of them, and hope I never shall. As to layers, the Langshan occupies a very high place, the pullets often starting to lay when five months old.

They make good mothers, but are not prone to sit. The smallest hens should be selected for this purpose, heavy birds may crush the chicks. The cocks are very vigorous, and may be allowed a good number of hens—seven or eight, or more. Pullets intended for breeding and showing should be prevented from laying too early, as it often retards their growth, and spoils the shape and appearance. The cockerels should also be allowed to fully mature before being used in the breeding pens. If kept in cockerel runs they seldom fight. A mob of well-bred young Langshans of the true type when in full feather is a grand sight. The majestic shape and appearance, red comb, face and wattles, flowing tail, and brilliant beetle-green lustre of the plumage make this Fowl one of the handsomest of all breeds. Anyone can breed good Langshans, with a little care and attention given to mating. A large mob of typical birds may result, and even include some 'cracks.' Every Langshan, however pure, cannot be a prize-winner, any more than in any other breed.

"In giving the Australian Standard, and also the English (Miss Croad's) ditto, at the close of this Chapter, I think the former a good one, except on the point as regards length of shank. It says, 'rather long.' Now, I think that the shank should be proportioned to the size of the bird, and on no account *too long* or approaching a *stilly appearance*. In a cock, $4\frac{1}{2}$ to $5\frac{1}{2}$ inches will be about the proper length.

"In Plumage, I prefer Miss Croad's definition as more descriptive, 'smooth and close in surface.' The term 'tight-feathered' is apt to lead to 'hard-feathered.' Again, I would award 20 points to symmetry rather than colour, as being a more useful point. At the same time I insist that in no point should any marked deficiency be permitted, as the further one strays from the Standard the worse for the future of the breed.

"In Deductions, I would take five points off each 'short shanks' and 'heavy feathering on legs and toes,' and add to 'want of breast meat' and make *crooked breast* a *disqualification*. By short shanks I mean under $4\frac{1}{2}$ inches for a full-grown cockerel. Of course, if a bird is feathered on legs and toes like a Cochin, I should include such a defect in the 'requested to pass' clause, to which I would also add those birds having a lumpy Cochin appearance, as well as diseased birds, although most Show regulations 'bar' the latter.

"Nothing is said in either Standard of the *shape* of the comb, which should be a graceful arch, and following the shape of the head, not running away at right angles to the neck, as I have often seen. All the best drawings and photographs of celebrated birds show this feature. In the hen the back of the comb should only be of medium development, and should lie close, and not spring up. One hears the terms 'rangy,' 'reachy,' and 'tall,' and in many cases these are all taken to be 'long-legged,' even if the bird has a short, thick neck. This term applies more to the *general reach* of the body and neck when in an upright position, and a short-legged bird may have all these terms applied quite correctly. As before stated, the term 'short-legged' is not used in reference to a dumpy-legged bird, but in contradistinction to a very long-legged one, with a shank, say, over $5\frac{1}{2}$ inches. Miss Croad states in her work and elsewhere that she breeds both types, the tall and the short-legged birds. She admires both, but states that, although she thinks Fanciers will incline more to the tall bird—that is, the *long-legged*—the shorter-legged is the more *valuable* of the two, especially to Farmers, as it matures earlier. Now, there is no doubt this is a most important consideration.

"Is this valuable breed to figure in future merely as a 'Fancy bird,' of comparatively little use as a Table Fowl, pure or crossed, or are we to keep to the Standard striven for by Messrs. Weir, Tegetmeier, and others, and preserve the useful and handsome bird as is intended? I have no objections against *two* classes, the same as there are for Old English and Modern Games; but let Farmers and others know that one is the *most useful*, pure breed obtainable, and the other one of the *most useless*. For, unless breeders of these long-legged birds are prepared to take the same trouble, and give the expensive food that some Fanciers give, the progeny will all be in-need weaklings, and a dead loss to the grower. Many people have strong prejudices against pure-bred Fowls, but the true Langshan (medium type) is one that would *reverse* those prejudices, while the other type would certainly *increase* them."

STANDARDS OF EXCELLENCE.

Miss Croad's Standard for Langshans.

In *Poultry*, 1893, in a letter from Miss Croad, is the following, which is well worthy of consideration, as I think it amplifies our Australian Standard. She says:—"Mr. Franklane Sewell, the American animal painter, who is just leaving our shores for the Far West, has paid me several visits during his stay in England. On one of those occasions he was kind enough to make a rough copy of my ideal of a Standard of Excellence for the Langshan. We were fully agreed on all points except the leg-feathering, which he, like most Americans, prefers in greater abundance."

REMARKS APPLICABLE TO BOTH SEXES.

Size.—In a breed of such value for table purposes, size is an important consideration. A cock should weigh at least 9lbs., and a hen not less than 7lbs.

COCK.

Shape and Carriage.—Sufficiently long on the legs to give a graceful carriage to the body, head carried well back, with full flowing hackle, good wide shoulders, and very long meaty breast, fan-shaped tail carried rather high, with plenty of glossy side hangers, and two sickle feathers some 6 inches or more beyond the rest; general bearing, that of an extremely active, intelligent bird.

Comb.—Medium size, red, single, straight, fine in quality, and evenly serrated, being free from side sprigs.

Beak.—Light to dark horn colour, the latter preferred.

Head.—Small for size of the bird, full over the eyes, and carried well back.

Eye.—Large, bright, intelligent, and ranging in colour from lightish brown to very dark hazel, with black pupil; dark preferred.

Deaf Ears and Wattles.—Brilliant red, medium size, and smooth; wattles well rounded.

Neck.—Well arched, and with long hackles, flowing gracefully into the lines of the shoulders.

Back.—Saddle and tail coverts rising, with concave sweep into the tail.

Breast.—Deep and meaty, a long breast-bone being absolutely necessary to the production of white meat in excess of fat.

Wings.—More frequently carried low, but often clipped up according to the mood the bird happens to be in.

Tail.—Carried high, fan-shaped, and abundantly furnished with tail coverts and distinct sickle feathers projecting some inches beyond the rest.

Legs.—Wide apart, medium length, well feathered down to hocks (not vulture-hocked), the feathers running down outside the legs and the centre of the *outer* toes on each foot.

Feet.—The toes should be long and straight, small of bone, and, like the legs, a dark slate colour, with the skin between the toes and scales a *vivid pink*. It should be added that this dark slate colour assumes a paler hue as the bird grows older.

Plumage.—Smooth, and close in surface, but not tight. This plumage is iridescent, and might be characterized as having a beetle-green gloss upon it.

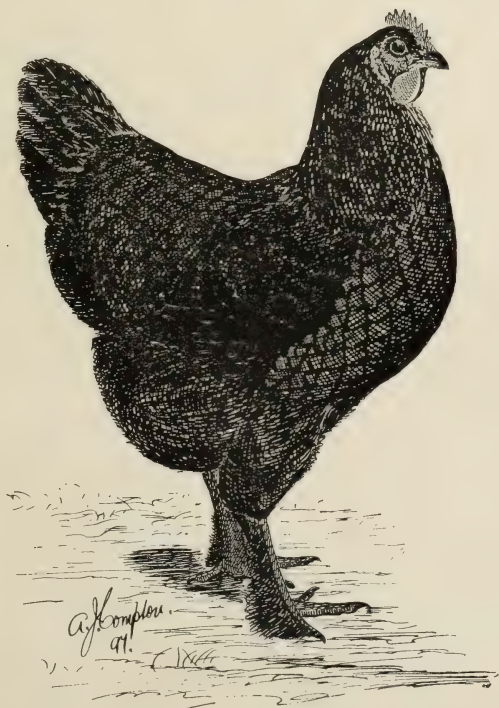
HEN.

Carriage and Shape.—Gracefully rounded outline, free from that lumpy and squat appearance which results from short breasts and excess of oval. General appearance, that of an active, intelligent bird.

Plumage.—Same as cock, making allowance for difference in sex.

Comb.—Medium size, single, erect, fine in quality, and evenly serrated.

Tail.—Fan-shaped and full, carried rather high. In other respects the hen resembles the cock.



Black Langshan Hen (Medium Type).

Bred by and the property of Mr. W. F. Weeks, Wentworth Falls, N.S.W.
Winner of 1st Prize at the Royal Agricultural Society of N.S.W. Show.

SCALE FOR JUDGING LANGSHANS.

							POINTS.
Symmetry	...	...	...	...	...	..	20
Firmness of bone and skin	...	...	...	...	...	...	15
Size	...	..	...	...	...	...	15
Condition	...	...	...	...	...	...	15
Quality and colour of plumage	...	...	...	...	...	...	15
Head, Comb, and Ear Lobes	..	...	...	...	...	...	10
Legs and Feet	...	...	...	...	...	...	10
							100

The Standard of the Victorian Langshan Club (Australia), is as follows:—

REMARKS APPLICABLE TO BOTH SEXES.

Size.—In a breed of such value for table purposes, size is an important consideration. A cock should weigh at least 9lbs., and a hen not less than 7lbs.

COLOUR.

Beak.—Light to dark horn colour, the latter preferred.

Comb, Face, Wattles, Deaf Ears.—Brilliant red.

Eyes.—Light brown to dark hazel (the latter preferred), with dark pupil.

Legs and Feet.—Dark slate (turning lighter after first year), with skin between the scales and toes, showing a pink tinge; under foot, white.

Toe Nails.—White.

Plumage.—Deep rich black throughout, glossed brilliantly with metallic green—the greener the better. Purple sheen is a *great blemish*.

Skin.—White and thin.

COCK.

General Description.—Tall, upright, and alert, with head carried high; deep, well-rounded body, wide shoulders, prominent breast, fan-shaped flowing tail, with plenty of glossy side hangers, and two long sickle feathers.

Head.—Small for the size of the bird, free from coarseness, and carried well back.

Beak.—Slightly curved, strong, and well-proportioned.

Comb.—Single, upright, of medium size, fine in texture, evenly serrated, and free from side sprigs.

Wattles.—Well rounded, medium size, and fine in quality.

Deaf Ears.—Smooth, and well proportioned.

Neck.—Gracefully arched and reachy, covered with rich glossy hackle, broad at base, and tapering gradually to the head.

Back.—Fairly long, saddle feathers rather short and close fitting.

Breast.—Full and deep, a long breast-bone, with abundance of meat.

Wings.—Fairly large, carried somewhat low, and with very brilliant coverts.

Tail.—Fan-shaped and full, carried fairly high, abundantly furnished with tail coverts, and distinct sickle feathers projecting beyond the rest several inches.

Thighs.—Rather short, but well developed, covered with close-fitting feathers, especially close round the hocks.

Shanks.—Wide apart, rather long, fine in bone, with a fringe of feathers on the outside.

Toes.—Long, straight, and well spread out, the outer toe only slightly feathered.

Plumage.—Tight-feathered, and very little fluff.

HEN.

General Description.—Gracefully rounded outline, body carried well off the ground, and free from lumpy or squat appearance, smart and alert in carriage.

Comb.—Very neat and erect.

Back.—Fairly long, with scarcely any cushion.

Tail.—Fan-shaped and full. In other respects the hen is similar to the cock.

SCALE FOR JUDGING.

POINTS.

Richness of colour	...	...	...	...	...	...	20
Symmetry	...	...	...	...	...	...	15
Size	...	...	...	...	...	...	15
Condition	...	...	...	...	...	...	10
Head and Comb	...	...	...	...	...	...	10
Legs and Feet	...	...	...	...	...	...	10
Thin and White Skin	...	...	...	...	...	...	10
Fine Bone	...	...	...	...	...	...	10
							100

DEDUCTIONS.

Want of breast meat	...	...	...	...	...	...	15
Crooked breast	...	...	...	...	...	...	15
Purple sheen	...	...	...	...	...	...	15
Too much fluff	...	...	...	...	...	...	15
Heavy-feathered leg and toes	...	...	...	...	...	...	15
Faulty comb	...	...	...	...	...	...	10
Short shanks	...	...	...	...	...	...	10
Twisted toes	...	...	...	...	...	...	5
							100

Judges are requested to pass birds with any of the following defects:—Yellow skin, shanks or feet shaded with yellow, yellow at base of beak or round the eye, vulture hocks, feathering on middle toes, clean legs, coloured or white feathers, wry tail, squirrel tail, permanent white in ear-lobe, side sprigs on comb, or the comb other than single.



CHAPTER XXII.

DORKINGS.

THE Dorking can safely claim to be the English Fowl *par excellence*, as outside of mere fancy value for exhibition purposes the breed holds a world-wide popularity for its economic virtues. Strange that the Dorking has not been fostered to any extent in the Australasian colonies, and this may, possibly, be attributed to one or other of the following causes:—First, the extreme difficulty in acclimatising them under the widely different climatic surroundings of Australia and that of Great Britain, and the difficulty experienced by fanciers here in obtaining fresh blood, the long voyage and necessarily close confinement being a great drawback, besides which few, if any, arrive with their feet and toes in sound condition.

The advent of Poultry Shows has certainly done much to improve the feather properties of the Dorking but it is a very open question whether the so-called improvements have or have not caused a deterioration in their economic qualities. The first, or early Dorkings, were of a grey colour, the hens being of a neat grey speckled colour on the upper part of the body and wings, and were not nearly so large as the best present day specimens, the general shape being also somewhat different. At this time the White variety was much fostered, and recognised as the true Dorking, but the skill of breeders has now mastered the difficulty of type and feather, and the Coloured and Silver-Grey varieties have now outstripped their progenitors in the essential points of the breed.

Coloured Dorkings.—That this variety has been cultivated to its now high standard of excellence by the aid of a distinct cross is without dispute. They are bred and exhibited with both single and rose combs, though the latter are rarely seen in the Coloured variety. The colour of the Dark or Coloured Dorking cock is hackle and saddle-hackle, white or straw, well striped with black in the centre of the feathers, especially distinct towards the ends; the back a mixture of cream and rusty brown straw, more or less intermixed with black; shoulders, coverts, and wing-bow a mixture of white, black, and grey; wing-bar glossy greenish-black; wing secondaries, white on the outer web, black on the inner web; breast, thighs, and underparts as black as possible, though a slight mixture of white or brown feathers is admissible; tail black as possible; face, comb, lobes, and wattle brilliant red; legs and feet a delicate white, with a pinky shade. The hen to match is similar in face, comb, lobes, and feet; the hackle white or of a very pale straw colour, each feather striped with black, this latter marking varies in density in different specimens, in some being quite black, while in others more of a greyish shade; breast a salmon red, with the outer edges of the feathers more or less tipped with a greyish black, also of various shades of density; the rest of the body feathers being dark grey, almost black, the shafts of the feathers being creamy white, with the edges of the feathers of a paler shade on the back and cushion, the feathers on the wings and sides having a tendency to a dull brownish tinge, minutely pencilled with a darker colour, the feathers being laced with a still darker colour, almost black, the tail coverts are similar to the back and cushion, the true tail feathers being almost black. Still another colour of hen also shown with some success, and considered by many to be even more handsome, has the body feathers pencilled with brownish grey in the centre, with black lacing round the edges, the hackle being a trifle lighter, and the breast a shade lighter salmon colour. To breed cockerels to feather points, hens, as secondly described, will produce them uniformly if mated with a standard coloured cock, but to breed pullets of the first mentioned marking, it will be necessary to use a cock with heavily striped hackles, the darker the better, also avoiding as much as possible white in breast or tail.

Silver-Grey Dorkings.—This variety is the most popular of the whole family, and this is not to be wondered at, as the plumage of both sexes is so beautifully clear and distinct. There is little doubt that

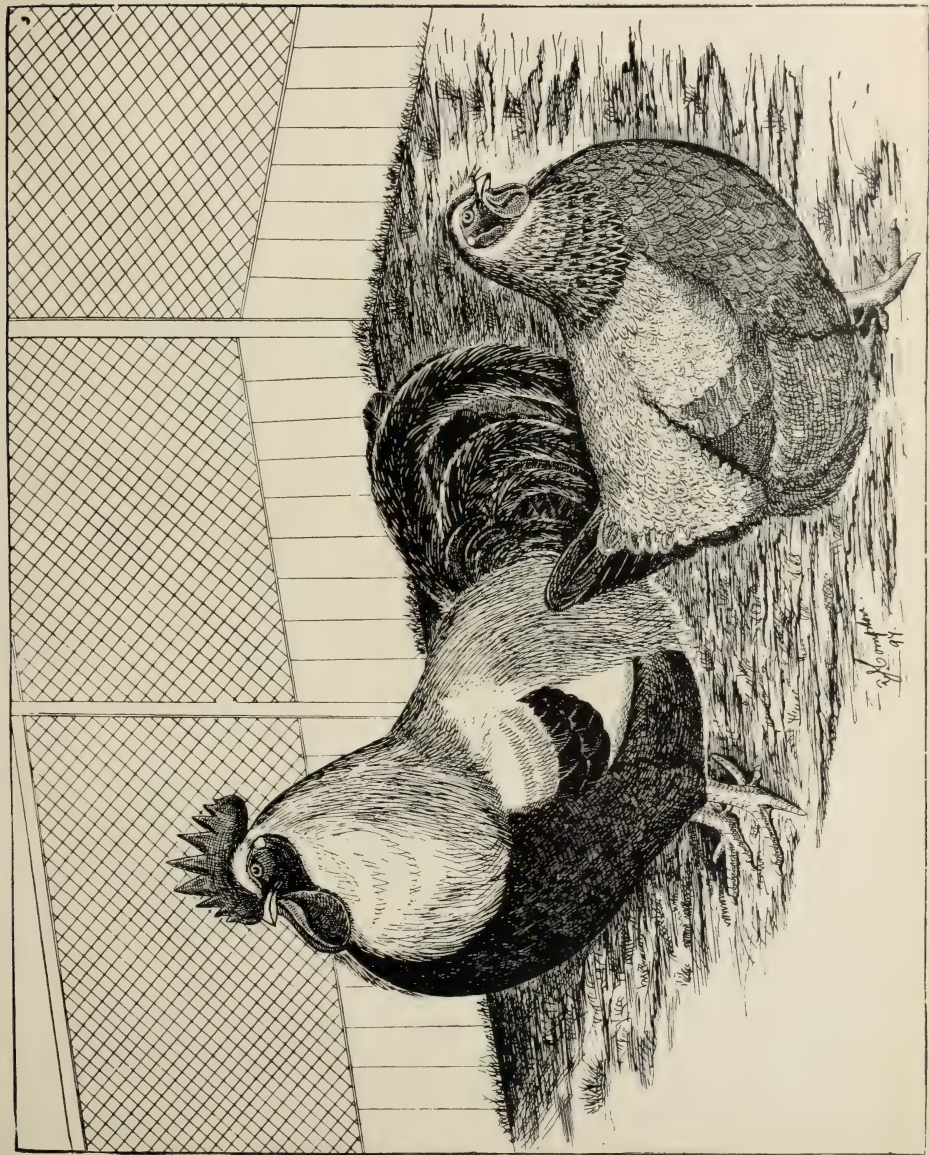
both the Coloured and Silver-Grey are descended from the one common ancestry, being bred in much the same manner as the Dark and Light varieties of the Brahma Fowl, selecting for the perpetuation of the species those of the darkest shade of colour in the one, and those of the lighter in the other. It is rare, however, to find the Silver-Grey approaching the immense size of the Coloured variety, though the former breed absolutely true to colour for generations. The Coloured variety, on the other hand, receiving aid from some other cross, the infusion of fresh or alien blood has done much towards increasing size and stamina, though a loss in feather properties is the inevitable result. The colour of the Silver-Grey cock is—head, neck hackle, back, saddle hackle, shoulder coverts, wing-bow, and secondaries, silvery white; wing-bar, steel blue; breast, thighs, and tail black, with a greenish sheen on the feathers; though it is extremely difficult to find a bird, after the first moult, that does not exhibit *some white or grizzled feathers* in the breast. The hen, to match, should be of a beautiful uniform French-grey, or pale slate-coloured ground colour on back and wings, minutely and evenly pencilled with black; there should not be the slightest approach to brownish or ruddy-coloured marking on the sides of the wings; the shafts of the feathers on the wings, however, exhibit a lighter or paler shade; the neck hackle should be silvery-white, with a white shaft to the feather, and on each side of the shaft a bold black stripe, becoming more pronounced towards the bottom of the hackle (Fig. 68); the breast should be a sound warm salmon-colour, with shafts of a lighter or paler shade; the salmon-colour extends well down on to the front of the thighs, gradually merging into an



FIG. 68.—Hackle Feather of Silver-Grey Dorking Hen.

ashy-grey on the belly and underparts. Though the Silver-Grey Dorkings, as previously stated, will breed true to feather, this is only certain if the pedigree of the birds is known—as in many instances a purchased specimen may, to all appearances, be an ideal Silver-Grey; yet, on crossing into another strain, the progeny will sport and the cockerels turn out grizzled on breast and thighs, and heavily ticked in hackle, so, therefore, it is compulsory, if feather properties are desired, that inbreeding must be resorted to, and, in all probability, once breeding back and in again will rectify matters.

White Dorkings.—These are considered by those most competent to offer an opinion, as being the purest-blooded of the whole family. This is borne out, to a great extent, by the established fact that this variety, without exception, never fails in breeding the fifth toe, and invariably possesses the true Dorking shape and carriage. They are, without doubt, the most beautiful and aristocratic in appearance of the whole tribe; the glossiness and purity of their plumage are proverbial, and the rose comb sets them off to great advantage. The whites are considered good layers, and the best of all table poultry. Their eggs are a delicate pinky white shade, and of good size, and as winter layers the hens are better than the other varieties. It is also a recognised fact that the White Dorkings are harder in constitution than either the Coloured or Silver-Grey, and if the chickens are reared in a natural and hardy manner, they are as hardy and robust as other poultry. A great difficulty to overcome



Silver Grey Dorkings.

in the rearing of White Dorkings, or for the matter of that, any white variety of poultry for exhibition is the natural tendency towards developing a dirty straw or yellow colour in the back, neck, and hackles, so that it is in all cases advisable to breed from those birds alone which are of the purest and clearest white in plumage. Much can be done in the way of providing ample shade from the sun during the extremely hot summer days, which will have the effect of minimising the tendency to yellow in the plumage.

Cuckoo Dorkings.—In this variety, which is the least known of all, the ground colour of the plumage in both sexes is of various shades of grey, the feathers being marked or pencilled throughout with dark blue-grey, in some cases approaching black; there are various shades of marking allowable. They, as a rule, rarely attain the size of the other varieties, but are of a very hardy disposition, and the hens are considered quite the best of the Dorking family as layers. This variety is specially adapted for the Practical Poultry Farmer, as the plumage will wear well, and the young stock give an excellent return as table poultry of early maturing proclivities, combined with fairly good laying powers. When Cuckoo Dorkings are bred for exhibition purposes, great care must be taken in avoiding breeding from a cock which exhibits golden or reddish feathers in hackle, back, and saddle, as these grave faults are certain to be transmitted to the progeny. White in tail or flight is still another fault to be guarded against.

As a cross for producing ideal table poultry the Dorking takes a long lead, the hens crossed with either the Indian Game, Houdan, or Langshan cock give the very highest results; another valuable cross is with the old-fashioned English Game cock; and crossed with either the Brahma or Cochins also gives a fine early maturing bird for the table.

To the kindness of Mr. S. C. Kesteven, of Christchurch, New Zealand, we are indebted for the following remarks on the breeding and management of this grand variety of Poultry. Mr. Kesteven writes:—

“I have often seen the Dorking referred to as the Farmer's Fowl of England, a title which has been conceded to the variety by most writers upon Poultry subjects. I think the worth of the Dorking is fully proved by the premier position it holds to-day in England, after the great number of years it has been bred in the United Kingdom. It annually exceeds in point of numbers any individual variety at the great national show (Crystal Palace), England, and this in spite of the appearance from time to time of numerous foreign and English manufactured breeds. The recently increased attention that has been devoted to the production of Table Poultry in Great Britain and the Australasian colonies, must most assuredly have the effect of still further increasing the reputation of the good old British Dorking. Fortunately the breed has never been ruined by the ‘feather craze.’ In-breeding in the pursuit of feather has destroyed the stamina of many varieties, but as long as the ‘five toes’ are the practical poulterer's trade mark of a good bird, Dorking breeders and fanciers need not fear the future. A good many of our judges are inclined to look too much for colour in the show-pen, what we require is really typical Dorking form, short legs, sound white feet, full breast, long and wide back, and well carried tail. There are four distinct varieties of the Dorking family, divided from each other by the colour of their respective plumage. There are dark or coloured Dorkings, silver-grey, white, and cuckoo, the two former being the largest and much the most popular, the last named is the least frequently met with. I sometimes read of Dorkings being a delicate fowl, and bad layers. When Poultry authorities write in this strain, I know at once that they have no knowledge of the breed whatsoever. I have kept Dorkings and Dorkings only (no other fowl finds a place in my yard) for a number of years. The great secret of success in handling this breed is not to confine them too closely or in-breed them too much. They require a certain amount of liberty, although a very quiet, tame, domesticated fowl, which will not stray far from their usual quarters. A good grass run with plenty of trees about for shade, with a dry house, well ventilated, and free from draughts, is what they require; and if kept under these conditions and fed properly will be found good layers, and otherwise do well. It is a breed that gets fat very quickly, and when kept for laying purposes require a moderate supply of food night and morning, *not nearly as much as they will consume if left to their own sweet will.* They are a long lived variety of Poultry. I have often had hens six and seven years old laying through the winter, and for table purposes, well, my advice to those who have never tried a *pure bred Dorking* on their table, is to do so at the very first possible opportunity.

"I do not attempt to describe the correct manner of feeding and rearing Dorking chickens. I have read so many authorities on this subject, nearly everyone of which differs more or less, that I have now arrived at the conclusion that there is no royal road to success in the undertaking. 'When doctors differ who shall decide?' Circumstances undoubtedly alter cases, and I think the best success is derived from one's own experience in the matter. I don't believe in hard-boiled eggs one so often reads as recommended by experts, plain wholesome food is my idea. Dorking chickens feather so fast that they want careful attention for the first six weeks, well sheltered from wind and rain.

"In selecting the stock for breeding purposes, sound, close feathered specimens should be chosen (not those that are cushiony or soft). Length, depth, and general squareness of body, with broad and long backs will generally be accompanied by length of breast-bone, a great desideratum in this breed. The bird's head should be large, but not by any means coarse; the fourth and fifth toes, that is, those growing at the back of the leg, should be low set on and separate. In this variety adult birds should only be bred from, that is, birds either entering or completing their second year. A bird of the Dorking family being in its prime at from two to three years old."

The following notes are also added on this old and highly esteemed variety by Mr. J. V. Smith, of Linwood Grange, Baringhup, Victoria. Mr. Smith writes: "I may state I have had 15 years' experience in the breeding and rearing of Dorkings, and I find, amongst their many other good and useful qualities, that they are hardy birds, many of my birds roosting out in the trees the whole year through. The main thing I consider to be



FIG. 69.—Foot, showing the five claws or toes, as in the Houdan and Dorking.

necessary in keeping and rearing these birds successfully, is a mild climate, a dry run (either sand or ironstone) and unlimited space; overcrowding and confinement in small yards being the principal cause of failure. On clayey soils this variety do not appear to thrive.

"The Dorking hen lays fairly well during spring and summer, but not as a rule the remainder of the year. The hen is a very good sitter, but being rather heavy the eggs are liable to be broken. As a mother the hen cannot be surpassed, often remaining with the chickens until they are four months old. The latter are easily reared under favourable conditions, growing quickly—some of my dark pullets at the age of 8 months weighing as high as 9 lbs. As birds for the table Dorkings cannot be excelled, and I am a firm believer in breeding birds with a long keel; not like the short bodied birds one so often sees in the present day show pens."

SCHEDULE FOR JUDGING DORKINGS.

GENERAL CHARACTERISTICS OF THE COCK.

Head and Neck.—*Head*, rather large, but free from coarseness; *Beak*, stout, strong and well proportioned; *Comb*, if single, large, upright, evenly serrated and free from side sprigs, if rose, firmly set and upright, wide in front, full of work or spikes, and as even as possible, free from hollowness, the whole comb narrowing to a peak or spike behind; *Wattles*, large and pendent; *Ear-lobes*, moderate in length; *Neck*, rather short, well covered with hackle feathers spreading well over the shoulders; *Body*, deep, full and square; *Back*, broad and long; *Saddle*, broad, but sloping downwards to the tail; *Tail*, carried at almost a right angle to the back, full and flowing; *Breast*, deep, prominent and full; *Wings*, large and broad; *Legs and Feet*, thighs, large and well developed, but being carried along the body look very short; *Shanks*, short,

fairly stout, fine in scales, perfectly free from feathers; *Toes*, large and well spread, the hind toes being two in number on each foot, the upper one being well formed, and, though growing close to the normal toe, still perfectly distinct and pointing upwards; *Size*, large, ranging from 10 to 14lbs. in adults, and 8 to 12lbs. in cockerels; *General Shape*, square, compact, and plump; *Carriage*, graceful and dignified, the breast carried very prominently.

GENERAL CHARACTERISTICS OF HEN.

Head and Neck—General appearance of head, quiet and intelligent; *Comb*, if single, falling over to one side of the face, though not so much as to obstruct the sight, if rose, similar to the cock's, but smaller; *Wattles and Ear-lobes*, fairly well developed; *Neck*, short and neat; *Body*, longer in proportion to the cock's, and deeper and squarer behind. *Legs and feet*, similar to the cock's with the exception of spurs; *Tail*, well developed, the feathers long and wide, the tail carried moderately close; *Size*, large, ranging from 8 to even 12 lbs.; *General Shape*, rather long and deep; *Carriage*, quiet and dignified.

POINTS OF COLOUR IN THE DARK OR COLOURED DORKING.

In Both Sexes.—*Comb, Ear-lobes, and Wattles*, rich bright red; *Legs*, a delicate white with a pinky shade; *Colour of Cock, Hackle*, white or pale straw, more or less striped with black; *Saddle*, similar to hackle; *Back*, a mixture of black, white, grey, and red; *Wing-bow and shoulder coverts*, white, mixed with black or grey; *Wing-bar*, glossy greenish black; *Secondaries*, white on the outer, black on the inner web; *Breast and Under-parts*, black, or black slightly mottled with white or brown; *Tail*, glossy greenish black, often, however, mingled with white; *Colour of Hen, Hackle*, white or pale straw, striped with black or greyish black; *Breast*, deep salmon red, each feather tipped with dark grey, almost black; *Rest of Body*, nearly black, the shafts of the feathers creamy white, the edge of the feathers running a shade paler on the back and cushion, the wings being of a brownish grey ground colour, minutely pencilled with dark grey or black, the feathers being laced with black at the edges; *Tail*, almost black, the top outer feathers and tail coverts similar in marking to the body colour. Another colour of hen also shown with some success is, *Breast*, a salmon red, the body feathers pencilled with a brownish grey on the centre, with a black lacing all round the feather, the shaft being of a creamy white.

POINTS OF COLOUR IN SILVER-GREY DORKINGS.

In Both Sexes.—*Comb, Face, Ear-lobes, and Wattles*, rich bright red; *Legs and Feet*, white, or pinky white, or even with a strong reddish tinge down the outer and inner sides of the shanks. *Colour of Cock*.—*Hackle, Back, Shoulder Coverts, Wing-bow, and Saddle Hackle*, clear, pure silvery white, free as possible from straw, brown, or black markings; *Wing-bar*, steel blue, bright and lustrous; *Secondaries*, white on the outer web, black on the inner, with a steel blue spot on the tip of each feather, forming when the wing is closed and under the saddle hackles a stripe on the upper edge; *Breast and Under-parts*, bright glossy black, though old cocks often exhibit some white or grizzled feathers on breast and thighs; *Tail*, bright glossy black and very lustrous. *Colour of Hen*.—*Head and Hackle*, clear silvery white, striped distinctly with black; *Breast*, various shades of salmon colour, ranging from deep to fawn, in all cases shading off to a pale or ashy grey colour on thighs and under-parts; *Body and Wings*, clear French grey or pale slate coloured ground, minutely and evenly pencilled all over with darker grey, quite free from brown or rusty markings on wings and sides; *Tail*, black, the top outer feathers and tail coverts the same colour, and marked similarly to the back and wings.

POINTS OF COLOUR IN WHITE DORKINGS.

In Both Sexes.—*Comb, Face, Ear-lobes, and Wattles*, rich, bright red; *Legs and Feet*, white, or white with a delicate tint of pink; *Plumage*, pure, spotless, silvery white throughout, as free as possible from any inclination to straw colour.

POINTS OF COLOUR IN CUCKOO DORKINGS.

In Both Sexes.—*Comb, Face, Ear-lobes, and Wattles*, rich bright red; *Legs and Feet*, white, or pinky white; *Plumage*, right throughout a slaty or blue-grey ground, pencilled right across the feather with distinct bars of a darker grey or blue-grey.

SCHEDULE FOR JUDGING DARK OR COLOURED DORKINGS.

A bird perfect in shape, size, colour, and all other points, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Coarse head	6
Bad comb	5
Imperfect development of fifth toe	10
Bumble foot	8
Faulty colour of plumage	10
Want of size... ..	25
" " symmetry	20
" " condition	16

100

DISQUALIFICATIONS.

Crooked breast, crooked back, wry tail, or any other evident sign of weakness or deformity; total absence of the fifth toes, legs any other colour than white or pinky white, feathers on the shanks or toes, any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING SILVER-GREY DORKINGS.

A bird perfect in shape, size, colour, and all other points, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Coarse head	6
Bad comb	5
Imperfect development of fifth toe	10
Bumble foot	8
Faulty colour of plumage	15
Want of size... ..	20
" " symmetry	20
" " condition	16

100

DISQUALIFICATIONS.

Crooked breast, crooked back, wry tail, or any other evident sign of weakness or deformity, white in cock's breast or tail, total absence of the fifth toes, legs any other colour than white or pinky-white, feathers on the shanks or toes, any fraudulent dyeing, dressing, or trimming.

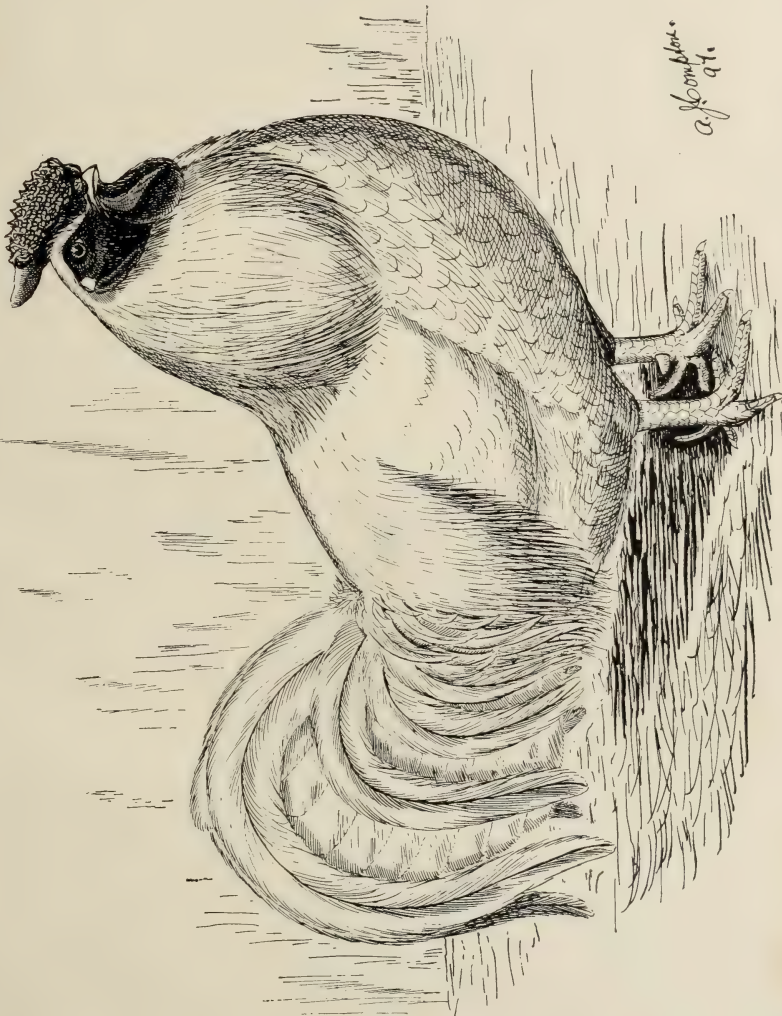
SCHEDULE FOR JUDGING WHITE DORKINGS.

A bird perfect in shape, size, colour, and in all other points, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Coarse head	6
Bad comb	8
Imperfect development of fifth toe... ..	10
Bumble foot... ..	8
Faulty colour of plumage	20
Want of size	20
" " symmetry	15
" " condition	13

100



Rose-combed White Dorking Cock.

DISQUALIFICATIONS.

Crooked breast, crooked back, wry tail, or any other evident sign of weakness or deformity, total absence of the fifth toes, legs any other colour than white or pinky white, feathers on the shanks or toes, any coloured feathers in plumage, any other than rose comb on either sex, any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING CUCKOO DORKINGS.

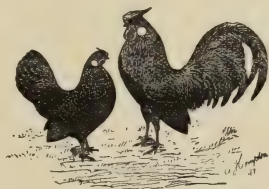
A bird perfect in shape, size, colour, and all other points, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Coarse head	6
Bad comb	8
Imperfect development of fifth toe...	10
Bumble foot... ..	8
Faulty colour of plumage	15
Want of size	20
„ „ symmetry	20
„ „ condition	13
	<hr/>
	100

DISQUALIFICATIONS.

Crooked breast, crooked back, wry tail, or any other evident sign of weakness or deformity, total absence of the fifth toes, legs any other colour than white or pinky white, feathers on the shanks or toes, white, black, or red feathers in the plumage, any fraudulent dyeing, dressing, or trimming.



CHAPTER XXIII

HOUDANS.

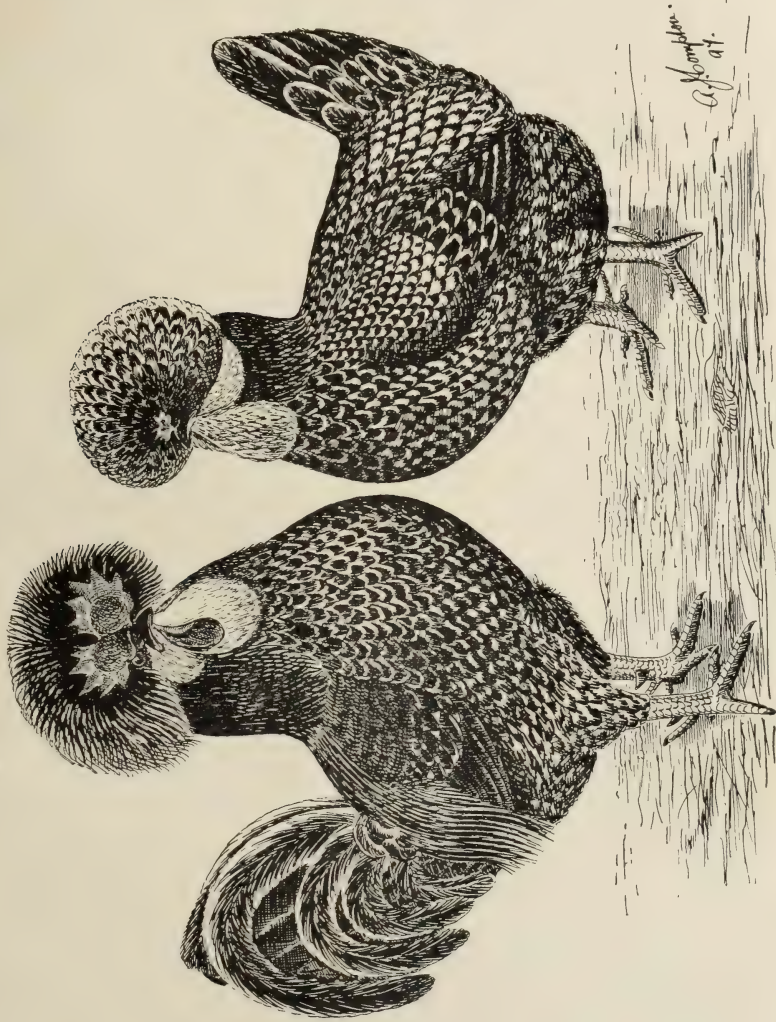
THERE is no authentic information available as to the origin of the Houdan Fowl, and no evidence that it is a distinct breed, it being generally recognised that the whole of the French Fowls are more or less closely allied to each other. Some authorities argue that it is a cross between the Crève and Sultan, with a top cross of the Dorking, though at the same time the Houdan, crossed with any other variety, possesses extraordinary powers of transmitting its main characteristics to the cross-bred stock, much more so than either the Crève or Sultan. Mr. Lewis Wright considers the Houdan—and, in fact, all the French breeds—owe their origin to crosses between the Polish and Dorking, and in writing about the Houdan (“Practical Poultry Keeper,” page 166), he says:—“This fowl in many respects resembles the Dorking, and Dorking blood has evidently been used in its composition, and that a cross between the latter and a White Poland would not be wide of the mark.” The same authority also mentions that all the French breeds possess one point in common—that of being delicious *eating*. They, moreover, show in a very suggestive manner what may be done by a judicious system of crossing and subsequent selection in the way of founding new breeds, since they are evidently built upon the Polish Fowl as a foundation, obtaining from this race the juicy flesh, excellent laying properties, and absence of incubating instinct, whilst size has been added from foreign sources. The Australian climate, especially the central coastal districts, being similar to the French climate, the breed should do well here, but, no doubt, owing to the paucity of fresh blood, do not seem to have made much headway in the Colonies.

The breed belongs to the Utility class of Poultry, but the Show craze for feather properties and fancy points—which can only be perpetuated by in-breeding—tends in a great measure to destroy their good virtues. It is a very tame and docile fowl, and one well suited for the ordinary householder's requirements, being a very good layer, and quite in the front rank as a table fowl, the chickens being very hardy, easily reared, and maturing early.

One strongly-marked characteristic of the breed is the comparative smallness of the bones, which excellent feature is transmitted to the offspring when crossed with other varieties. Crossed with the Light Brahma the chickens grow at an amazing pace, the pullets lay early, and the cockerels are fit for table purposes at four months old. With the Langshan almost similar results are obtained; with the Old Style Game and Indian Game Fowl a rather slower-maturing and smaller bird is produced, but of the very highest quality for the table, and the pullets are also fair average layers; with the Dorking a fine large-framed bird, early maturing, the pullets good layers, and for the table quite the best of all, owing to the abundance of fine white, juicy meat, the latter being abnormally developed on the breast, thighs, and wings. A Houdan cock turned down with a lot of common barndoor hens will work a marvellous change in the utility qualities of the stock in a single season, and if a fresh Houdan cock is used the following year with the stock so bred, splendid results from a practical and profitable point of view will be obtained.

For the following notes we are indebted to Mr. J. H. Hemsworth, of May's Hill, Parramatta. New South Wales, who has bred and exhibited the variety for the past eight years. He states:—

“One of the greatest traits in favour of the Houdan fowl is its extreme docility, possessing a natural tendency to be petted and admired; therefore, as a farmer's or cottager's fowl, it is a useful and interesting breed to keep. The Houdan fowl has a heavy, bulky appearance, the plumage being black and white mottled, intermixed. The hens are non-sitters, capital layers of good sized and well flavoured eggs; and as a table fowl, I doubt if any breed can surpass the Houdan in this respect, the flesh being of extra



Houdans.

COCKEREL.	1877.	HEN.	1877.
Winner of 1st, N.S.W.P.C. and D. Society.	1877.	Winner of 1st, N.S.W.P.C. and D. Society.	1877.
" " 1st, Royal Agricultural Society.	1877.	" " 1st, Royal Agricultural Society.	1877.
" " 2nd, Poultry Club, N.S.W.	1877.	" " 1st, Poultry Club, N.S.W.	1877.

Bred and owned by Mr. J. H. Hensworth, May's Hill, Parramatta, N.S.W.

fine quality, beautifully white and juicy, and the bird having an enormous amount of meat on the breast. The chickens grow at an immense rate, and are ready for the table when most other breeds are still with the hen. In fact, I have frequently killed and eaten chickens at three and four months old, which were as many pounds in weight when plucked and drawn, and a great point in their favour as table fowls is the comparative smallness of the bones. The chickens when hatched are black, the crest black and white, and the under colour, yellow. The comb of the Houdan is peculiar, being triple, the two outside portions opening something like a book, leaving the centre portion exposed to view. In mating Houdans to produce stock fit for the show pen, I have always found it necessary to select a bird excelling in a point in which the mate is defective, as if you attempt to breed from two birds with the same fault the chickens so bred will be even worse. In breeding for markings, I always select a dark cock or cockerel to mate with hens that are light coloured or *vice versa*; but have found the best results come from a cock rather light mated with dark hens, noting especially that the hens are of good blocky shape and with well developed crests. The cock should also be good in this point or the chickens will come with straggling or broken crests, especially the cockerels. Another point not to be overlooked is to allow the cock sufficient hens, no cock of any other breed being as vigorous as a Houdan. In fact, a Houdan cock requires twice as many hens as would be allowed a cock of any of the other varieties of Poultry. If it is possible, I prefer to breed from two year old birds on both sides, the results being harder and more vigorous chickens. In rearing the latter I find no difficulty, though from various sources I hear that they are rather tender; this is not my experience. It is an easy matter to select the cockerels from the pullets at an early age, the former developing the comb much more rapidly, the pullets' combs scarcely being noticeable till they are well advanced. The chickens cannot definitely be weeded out in this early stage, as often light coloured chickens will turn out the best when arrived at full feather, and on the other hand very dark birds will often moult out correct after the first year. The Houdan, though of marvellously quick growth, requires a long time to develop properly. Birds over two years old, unlike most breeds, turn out better plumaged birds than when younger, the cocks as a rule being much longer and better in feather. My advice is to breed and rear Houdans separate from other Poultry, as their large crests and whiskers handicap them considerably in obtaining their food if placed with other fowls. The cocks are, however, one of the most valuable for crossing purposes to improve fecundity, early growth, and superior flesh; and frequently I supply birds to market farmers for this purpose, of which they speak most highly.

"This breed requires great attention at the moulting period, so as to prevent feather eating, as they are decidedly prone to this vicious habit at the time when the feathers are appearing. The soft and fleshy quills in the crests, etc., are a great temptation to them, and, if once allowed to contract this bad habit, very little hope can be held out of ever exhibiting them. This can best be avoided by separating the birds while undergoing the process of changing their plumage. Sometimes this feather-eating habit is contracted by the fowls not having a suitable water fountain to drink from, with the consequence that their crests and beards get wet, and naturally fall over the eyes, offering a great temptation to the other birds in the pen, which, as a rule, they take quick advantage of. There are two colours in Houdans, called the light and the dark. Properly speaking, and taking the standard as a guide, the former is the correct one, but the fashion tends to the heavier marked birds. Personally, I like one as well as the other, providing that type and crest are good. I can strongly recommend the Houdan as a thoroughly useful all round fowl."

GENERAL CHARACTERISTICS.

COCK.

The cock is a squarely built fowl of bulky appearance, the hen being very similar and much larger in proportion to sex than other breeds.

The cock has a very solid body, slightly rounded, with firm carriage, on rather stout legs and feet.

Head.—Smart looking and alert.

Beak.—Moderate size, rather stout, horn coloured.

Eye.—Bright red and sparkling, a pale eye may be tolerated in an otherwise good bird.

Comb.—The formation of this all-important point is strikingly peculiar ; it resembles two scallop shells joined near the base ; the junction covered with a flesh protuberance resembling coral, the outside or edge of the leaves or shells are serrated irregularly, the whole comb being the brightest red. The ideal comb being described as similar to a butterfly with the wings three-parts open.

Wattles.—Medium length, well rounded off at the bottom. In birds with great development of beard the wattles are generally short.

Ear-lobes or Deaf Ears.—Almost hidden from view by the muffling or whiskers ; colour, white or reddish white.

Crest.—Large, full, and compact, the points of the feathers falling to the back and sides. The colour of the crest should be the same as all other parts of the body, but generally there is much more white than black, and very often straw coloured feathers are found here. Straw coloured feathers in the crest are generally caused by the sun ; they nearly always moult out white, and, though not a disqualification, they are very objectionable. The whole crest should incline backwards, leaving the comb in clear relief.

The Beard.—Very thick and bushy under the throat ; colour, black and white.

The Whiskers or Muffling.—Standing well out at the sides, and really forming a connexion between crest and beard ; colour, black and white.

The Neck.—Of fair length, carried very upright, with a good curve or arch, and abundantly furnished with neck hackle.

The Back.—Very broad and sloping towards the tail.

The Wings.—Large, but carried closely to the body.

Saddle.—Wide and well furnished with feathers.

Breast.—Very full and fleshy, carried well forward.

Legs and Shanks.—Short and stout, free from all signs of feathers. The colour of the legs is a pinky white, well mottled with lead colour or black.

Feet and Toes.—The feet are the same colour as the legs, the toes five in number, four of them being very straight, the fifth or double toe behind should be quite distinct in formation and pointing slightly upwards.

The Toe Nails.—Dark horn or black, very hard and pointed.

The Tail.—Carried fairly upright, of large size, and furnished with full sweeping broad sickles. The colour of the tail should be black and white. The ideal tail should be black and white feathers alternately, but the lighter coloured birds have a preponderance of white.

Carriage.—Very upright and vigorous.

Size.—Large, weighing from 8 to 10 lbs. or more.

Plumage.—Black and white, as evenly mottled as possible. The marking should be especially even on breast, the whole should be as free from admixture of straw colour as possible, though the white is inclined to turn this colour if the bird is exposed to the rays of the sun.

HEN.

The difference in the size of the hen is less marked in Houdans than, perhaps, any other breed. A fair specimen should weigh from 6 to 8 lbs.

Head.—Smart looking and alert.

Beak.—Similar to the cock, but a little shorter.

Eye.—Bright red and sparkling.

Comb.—Very small but exactly of the same formation as the cock.

Wattle.—Very small and well-rounded.

Ear-lobes or Deaf Ears.—Almost hidden by the muffling.

Crest.—As large and as compact and globular as possible. The hen's back should not slope as much as the cock's ; the mottling or marking of the plumage is more evenly distributed throughout the body and crest, in other points being identical with the cock.

SCHEDULE FOR JUDGING HOUDANS.

A bird, perfect in shape, carriage, colour, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Comb	10
Deficiency in crest or muffling	15
Straw-coloured feathers	10
Plumage too light, too dark, or very unevenly marked	10
Want of size	20
" " symmetry	15
" " condition	20

100

DISQUALIFICATIONS.

Absence of fifth toe, absence of beard, muffling, or crest; red or brown feathers in plumage, or total absence of black and white marking; yellow or feathered shanks and feet; crooked breast; wry tail, or any other bodily deformity; any fraudulent dyeing, dressing or trimming.



CHAPTER XXIV.

PLYMOUTH ROCKS.

POSSIBLY no variety of Poultry (excepting the famous Cochin or the muchly abused Langshan), caused greater controversy between fanciers in America and Great Britain than the Barred Plymouth Rock. The difference existing between the American and English standards of excellence being most marked, no doubt held great weight in the matter, and probably was the main factor in the discussion. The Americans, being the originators of the breed, are certainly entitled to great respect, their ideal tending towards the lighter coloured birds, whereas in the Old Country a more medium shade of steel grey plumage is fostered. There is, however, much to be said in favour of the medium coloured birds against the lighter, as the latter shade is more inclined to lose density in a few seasons, becoming too pale, and again is much more difficult to produce in the progeny each successive generation. Great change has of late years taken place in the depth of markings and ground colour, but a few years back solid markings were the rage, with the ground colour so pale as to appear almost white. This was very conspicuous in the hens. It will be granted that a breed of fowls with such a "complexity of blood" must necessarily vary in some particulars, and when it is remembered that the Black Java, Dominique, Cochin, Malay, Chittagong, and Dorking have had a hand in their production, leaves little to be wondered at, beyond the fact that they should breed so generally true to feather and type. In breeding the Plymouth Rock there is a wide field open to the fancier to produce birds of high merit, but this cannot be done without a great deal of care, selection, and study. In cocks rarely does a high-class specimen appear even at our best Shows, the majority of the birds exhibited being more or less washy in colour. They are, no doubt, extremely hard to breed *right up* to standard requirements, and the stock birds should always be most carefully selected, especially noting that faults on one side are *quite* counter-balanced on the other. A stock cock should be as large as possible, providing he is active and vigorous. The breast must be hard, deep, and full; the marking of the plumage should be as even as possible; the barring of the feathers should run right across, and barred right down to the skin, and on no account show brassiness in the hackles or back, a bird faulty in this respect should be discarded; the body large, fairly square and compact; legs rather short; shanks and feet a bright yellow; the beak clear yellow, although a streak of horn colour is admissible; comb medium size, thick at base, and evenly serrated, fitting well on to the head, following closely the contour of the neck; comb, face, ear lobes and wattles rich bright red; the lobes quite free from white or yellow, (*a cock with this latter defect will beget pullets far worse in this failing*); tail medium in size, carried moderately high and fairly close together, the main sickle feathers well curved and a few inches longer than the true tail feathers, these sickle feathers should be evenly barred right to the extremities, but this is seldom seen, as 90 per cent. of cocks show white, though as cockerels they might have been sound in tail; white in flights is also a grievous fault, strongly hereditary, and if a cock is used who has a lot of white in flights the pullets bred from him would be almost worthless; the plumage of the cock should be evenly barred with very dark blue, approaching black; the ground colour of the feathers being a light grey ground colour, but not white; the hackle feathers and saddle feathers should be one uniform shade right through, the barring on the hackles and tail being much finer than that of the body; the barring on the head, back, wing-butts and tail is much deeper than the rest of the plumage; the hackles full, and flowing, quite free from white, black,



Barred Plymouth Rocks.

Bred by and the property of Mr. W. F. Weeks, Wentworth Falls, N.S.W.
Winners of 1st Prizes at Mudgee, Wellington, Muswellbrook and Singleton Shows, 1897.

or brown feathers. The hens to match a bird of this description should be similar in all points to the cock, making allowance for difference in sex, and the larger they are in frame, if of good colour and barring, the better results are likely to follow. One thing to be avoided in mating the Barred Variety is, do not mate together two birds with whitish ground colour, as the progeny from these would run even more indistinct in barring, while on the other hand, if good and well barred sickle feathers are desired in the cockerels the stock hen's tail feathers must be evenly and rather heavily barred. Though we have given the foregoing description of birds and their proper mating to produce creditable or even an occasional high-class specimen, it will still be found that the progeny will at times vary, many of them coming too dark or sooty in feet, some of the pullets perfect black in plumage, and some of the cockerels light and washy. The moral of this is obvious that when a few are produced that excel in the desired qualification there is but one resource, *and that is to inbreed them*. If this is not carried *too far* no evil results are likely to follow, but rather the type and colour will be definitely and permanently fixed. The other varieties now bred and exhibited are Whites, Blacks, Buffs, and Pea-combed Barred.

The Whole Family stand well up in the scale of useful breeds, probably occupying first position for general purposes. They almost equal the Cochin, Langshan, and Brahma in size. The Mediterranean varieties in egg-product'on, the Game and Dorking in quality of flesh, and in hardiness and adaptability to climatic surroundings are second to none.



FIG. 70.—Standard Feather Marking of Barred Plymouth Rock.



FIG. 71.—Faulty Feather Marking of Barred Plymouth Rock.

One difficulty likely to confront the beginner in breeding the Barred variety, is that while young the chickens do not show uniformity of colour, type or symmetry, some of the chickens hatching white on the head and neck, white on the breast and underparts of body, with a mixture of black and white on the back, others appear almost black, some quite black, and others black with a white stripe down the neck and breast. The chickens feather at an astonishing rate, and when from a week to a fortnight old can be picked out with tolerable certainty. When the chickens are not black, the sexes can be distinguished at a fairly early age, as when bars of black and white appear it may be relied on as a cockerel, but when the wing feathers show black for about an inch, followed with faint light bars, a pullet. Those chickens also which exhibit a lot of white on the head and down the breast and underparts will invariably turn out light coloured cockerels with white in flights and tails. The young pullets rarely appear with white on the back, though at times a little white appears on the wing tips, the black on the wings becomes displaced by bars of a light grey colour, becoming as they moult more and more distinct.

The exact or true type of the Plymouth Rock is difficult to describe, different strains varying considerably, but as a fair guide a modification of the carriage of the Brahma and Dorking is about the nearest we can place them, that is, mid-way between the two.

GENERAL CHARACTERISTICS OF BARRED PLYMOUTH ROCKS.

THE COCK.

Head.—Medium in size, showing fair width of skull with nice arch and carried upright, the colour of the head feathers greyish white barred with dark blue, almost black, to the skin; *Beak*, yellow in colour, stout at the base, and well curved at the point; *Eyes*, bay in colour, bright and intelligent; *Comb*, bright red in colour, fine in texture, with moderately deep serrations six or seven in number and quite free from side sprigs, the comb should be very firm and carried perfectly erect; *Ear-lobes*, bright red in colour, only moderate in size, not to hang pendent or loose, but of uniform width with a slight inward curve at the ends, quite free from white or yellow spots or streaks; *Wattles*, bright red in colour, of fair length and nicely rounded, on no account to be long or pendent or purse shaped, but on the other hand rather oblong; *Neck*, well arched and of medium length, with hackle feathers full and flowing, covering the shoulders, colour greyish white, barred evenly and regularly to the skin with bluish black, giving the effect of a bluish tinge to the feathers, this barring must be distinct; *Back*, broad at shoulders, appearing flat between the shoulders, but forming a slight graceful curve from base of neck to root of tail; *Saddle*, fair length, the feathers flowing well over the wing secondaries, colour greyish white, barred right to the skin with bluish black, a shade deeper than the neck hackle and saddle hackle; *Breast*, full, deep, and round, giving the bird a massive appearance, colour greyish white, barred with bluish black, even and distinct in barring right to the skin, this barring is not as close as the top feathers, of neck, back, and shoulders, but the alternate bars of grey and bluish black should be of uniform width; *Body*, wide, of good depth and well rounded at the sides, well balanced on stout well proportioned legs, the breast and body both presenting in profile a close approach to the outline of a semi-circle, colour greyish white, barred with bluish black, the dark lines presenting the appearance of rings across the body and breast; *Wings*, medium in size, well folded and carried closely to the body, the wing-butts on the lower edges well covered with the breast feathers, the barring distinct and even, not too dark, but to harmonise with the rest of the plumage, white in the primary feathers of the wings or brown bars on the wings are serious defects; *Tail*, medium in size, spread at the junction with the body, and well filled in with soft curling feathers, sickle and tail coverts fairly developed, the whole tail carried moderately upright, colour greyish white, barred with bluish black; the tail should present a rather cone-shaped outline when viewed from behind, that is, wide at the base and narrowing to the top, not spread out laterally, the sickles should be quite free from white or discoloured bars; *Fluff*, moderately full, without, however, hiding the hocks and thighs, colour bluish grey, the feathers near the thigh webbed and fairly well barred, other portions of fluff soft in texture; *Legs*, thighs large, strong, and well covered with webbed feathers, colour greyish white, barred with bluish black; *Shanks*, medium in length, large, strong, and set on wide apart, colour yellow, of a golden shade quite free from black scales; *Toes*, straight, and well spread, colour yellow; *Carriage*, upright and commanding, graceful, and imposing; *Weight*, cocks 11 lbs., cockerels 9 lbs.

THE HEN.

Head.—Medium in size, with fair width of skull, showing nice arch, and carried upright, colour of the head feathers, same as the cock; *Beak*, yellow, and well curved; *Eyes*, bay, bright and intelligent; *Comb*, bright red in colour, small in size, fine in texture, with serrations of moderate length, and quite free from side sprigs; the comb should be firm and erect on the head, the serrations forming an almost straight line from front to back; *Ear-lobes*, bright red in colour and of fair size, quite free from white or yellow spots or streaks; *Wattles*, bright red in colour, well rounded, and of moderate size; *Neck*, medium in length, well arched, colour as in the cock; *Back*, broad, forming a slight concave turn from centre of back to root of tail; the back should be of moderate length, the cushion moderately developed, colour uniform from base of hackle; *Breast*, broad, full, and deep, colour as in the cock, the barring extending to the roots of the feathers, the breast invariably being the most evenly barred portion of the body; *Body*, broad and deep, well rounded at the sides, not flat-sided, colour to match the breast; *Wings*, medium size, well folded, and carried closely to the body, colour a shade darker than neck, breast, and back, wing-bows barred evenly across with very dark

blue, primaries and secondaries barred across with dark blue – almost black. The wings of a good specimen, when opened, should show a distinct series of barred semi-circles, extending from the lower edge of the primaries across the secondaries, and lie parallel to each other until they reach well up on the sides of the wings. The flights on no account should be solid black or white. *Tail*, medium size, somewhat spread at the junction with the body, the coverts fairly full, the shape and colour similar to the cock; *Fluff*, moderately full (not, however, hanging down as in the Cochon, but still at the same time sufficiently developed to give the hen a rather massive appearance from behind), colour as in the cock. The barring should extend all over the webbed feathers on the thighs. *Legs*, thighs well developed, and covered with feathers; *Shanks*, medium in length, stout, and well set apart, colour yellow, quite free from black scales; *Toes*, straight and well spread; *Carriage*, upright and matronly-looking; *Weight*, hens 9 lbs., pullets 7½ lbs.

White Plymouth Rocks are an offshoot of the Barred variety, and first originated in the hands of Mr. O. F. Frost, of Maine, U.S.A., and, like their progenitors, are a plump, compact, full-breasted, full-bodied fowl, very vigorous and hardy. They do not offer nearly so many obstacles in breeding true to colour as the Barred, though occasionally, as in all *made breeds* of Poultry, reversion is accountable for the appearance of a few off-coloured chickens, and now and again one or two with feathers on the shanks. They, however, breed truer to feather than either the Wyandotte or Andalusian, but can scarcely be expected to rival the Barred variety in general prolificacy for some time yet. They offer many advantages to the Fancier or Farmer, as there is not nearly the same difficulty in breeding a self-coloured variety as in one with more or less broken markings. They look even more attractive on a green lawn or the Show pen for that matter, than the Barred variety, and will, no doubt, in some few years become their chief rivals.

GENERAL CHARACTERISTICS OF WHITE PLYMOUTH ROCKS.

THE COCK.

Head.—Medium in size, and carried erect; *Beak*, yellow, stout at base, well curved; *Eyes*, bright bay, or hazel, large, clear, and bright; *Comb*, bright red, single, fine in texture, medium in size, perfectly upright, evenly and well serrated, and free from side sprigs; *Wattles and Ear-lobes*, medium in size, well rounded, and bright red in colour; *Neck*, medium in length, well arched, and covered with abundant hackle feathers; *Back*, broad, of medium length, the saddle feathers abundant; *Breast and Body*, breast broad, deep, full, and well rounded, body deep, full, and well rounded; *Wings*, medium in size and well folded, carried closely to the body, the under part of wing-bows well covered with the breast feathers; *Tail*, medium in size, carried moderately upright, the sickle feathers and tail coverts well curved; *Fluff*, moderately full; *Legs and Toes*, thighs large and strong, well covered with soft feathers; *Shanks*, medium in length, strong in bone, set on wide apart, and bright yellow in colour; *Toes*, straight and strong, medium length, well spread; *Colour of Plumage*, pure spotless white; *Weight*, cockerels 8 lbs., cocks 10 lbs. The hen should resemble the cock in head, comb, face, wattles, ear-lobes, eyes, beak, legs and feet, and colour; back, broad, and of medium length, with a slight cushion rising from the centre of the back to the tail, in all other points similar to the cock, making allowance for difference in sex. Pullets, 7 lbs.; hens, 8½ lbs.

The Buff variety are a long way from being up to the standard of either the Barred or White, and offer a splendid opportunity for an enterprising Fancier to take them up. They are now making great headway in America, the craze for Buff Poultry of various breeds being at fever point. Buffs should be a solid buff colour throughout, exactly as in the Buff Cochon, though of the true type and carriage of the Rock Family. Any black or white ticks or spots in plumage are a serious defect, but it is rare as yet to find one bird perfectly sound in tail. The birds as generally exhibited fail in evenness of colour, and their hackle feathers are more or less ticked with black. It will be some years hence before they will occupy an even position with the other colours, and when this comes to pass they will undoubtedly prove to be a most handsome and attractive variety.

The Blacks are with us always. No breeder of the Barred Plymouth Rocks need be without them, if so inclined. The great drawback to this colour becoming fashionable is the natural tendency they have to

exhibit black legs and feet, and this is extremely difficult to breed out; even if an occasional Black is produced with yellow legs, on being bred from the progeny in nearly all instances revert to the black leg again. Possibly the art of breeders will overcome this present difficulty, and in the near future Black Rocks will take their place amongst the recognised colours of the Plymouth Rock for exhibition.

The Pea-combed Barred is comparatively of recent introduction, being similar in all respects to the Single-combed Barred, with the exception of the comb, which is pea or triple, as in the Brahma and Indian Game. It is claimed that this variety is also an offshoot of the single-comb breed. That this is possible none could deny, but that it is more probable that some foreign cross has been introduced is the opinion of many. However, they are the equals of the single-comb variety on general utility grounds, and now seem to be much favoured by a great number of Fanciers in the United States of America, being admitted to the standard of perfection at the Convention of the American Poultry Association, held at Indianapolis (Ind.), January 25th, 1888.

For the following exhaustive and most valuable information on the origin, mating, and breeding of this grand utility breed of Poultry we are gratefully indebted to the kindness of Mr. H. Huntington Peck, "Hiawatha," Pascoe Vale, Victoria, Hon. Sec. of the Langshan, Orpington, Wyandotte, and Plymouth Rock Club, and so well known for many years as an enthusiastic breeder and admirer of that superlative all-round breed of Poultry, the Plymouth Rock. Mr. Huntington Peck writes:—

"To our American cousins the world is indebted for this grand general utility Fowl, for it was right in the heart of the New England States that the breed was originated some forty to fifty years ago. The name is taken from the village of Plymouth Rock, in the State of Massachusetts, celebrated as the first landing place of the Pilgrim Fathers. The Rev. H. S. Ramsdell, of Putnam, Connecticut, who had a hand in moulding the breed, is responsible for the nomenclature, and, as befitted a minister, performed the christening ceremony, naming the breed somewhere about the year 1860, evidently recognising thus early their fitness to lead the van of all American breeds, and so considering that they were worthy to bear the name of the place where the forefathers of the finest body of men in all America (the old New Englanders) had first set foot on American soil. Writing in the *Pet Stock, Pigeon and Poultry Bulletin* for March, 1873, the Rev. Mr. Ramsdell says:—'The modern Plymouth Rock was produced on the farm of the late Mr. Joseph Spaulding, of Putnam, Connecticut, which is situated about one mile from my own. I was intimately acquainted with Mr. Spaulding while he lived, and I was thus given an opportunity of knowing the facts of which I speak. Some thirty years since Mr. John Giles (well-known to the Poultry world) introduced a Fowl into this vicinity called the Black Java. Its plumage was black and glossy, its size large (Mr. Giles said the pullets had sometimes reached eleven pounds). They were an unusually hardy bird, with a dark, slate coloured, smooth leg, and the bottom of the foot yellow. They proved good layers, and of extra quality for the table—not coarse, like most of the large-sized birds, but fine and juicy. I sold a few of these birds to a Mr. Thayer, of Pomfret, of whom Mr. George Clark, of Woodstock, Connecticut, purchased some—he supposed the same. Mr. Clark, passing Mr. Spaulding's yard one day, noticed his fine flock of Dominiques, and proposed bringing a few of his Javas over to cross with them to increase the size. Mr. Spaulding accepted the offer, and when the chickens were grown rejected the black ones, and those with double comb, reserving to breed from only the single-combed birds which retained the Dominique colour, or near it. They were usually of darker plumage than the Dominique. The leg sometimes resembled the Java—dark, with yellow feet—but were mostly yellow, with a slight streak of dark on the front of the shank, which with the feet are free from feathers. We received some eggs from this cross from Mr. Spaulding as a present, and purchased some fowls of him. Of the first produce one hen weighed over eight pounds, another reached nine pounds and three-quarters. We soon had a fine flock of them. My opinion of the Fowl is that when bred pure as it came from the hands of Mr. Spaulding, it has few equals, and less superiors. True, they will now and then throw a black chick, but we find they grow fewer each year, and, doubtless, will soon disappear altogether.'

"All students and lovers of Rocks are deeply indebted to Mr. Lewis Wright for the enquiries instituted by him some years ago in America as to the origin of the breed, and the conclusions he comes to as the



Barred Plymouth Rock Cockerel.

The unbeaten "Champion Wonder" at 12 months.

The best Barred Rock cockerel yet seen in Australia. Bred by and the property of Mr. Ed. Maxfield, Upper Flynn's Creek, Gippsland, Victoria.

result of these enquiries are that, 'While many affirm the Cochin cross to have been employed, every correspondent, without exception, states that one of the parents was the Dominique Fowl,' and he adds that his own strong opinion is, 'That the Dominique, and also the Asiatic, being very common in America, many cases of crossing have occurred, and that thus the same Fowl (half Asiatic and half Dominique) has, probably, been produced in various quarters, and not in any one alone. However this may be, the fact that the modern Fowl was originally a half-bred Dominique is absolutely certain.' But from my own observation and experience for years with many hundreds of Rock chickens, I am convinced that a bird somewhat of the Langshan type of some ten years ago was used to cross with the Dominique, as a small percentage of chickens bred from nearly every strain of Barred Rocks which have been sent to Australia from either America or England show a trace of leg-feathering, and 499 out of every 500 sports thrown are entirely black in colour, thus emphasising the contention that the original birds used to cross with the Dominique must have been black, as stated by the Rev. Mr. Ramsdell. If any Cochin blood was used by the very early breeders, it was, most probably, the Black Cochin, otherwise some of the sports of the present day would be of other colours. But my opinion is, that very little Cochin blood was introduced, as if the originators had used much of it, Barred Rocks would show much heavier and softer feathering than is actually the case, and the modern bird is, when at liberty, of a very active disposition, quite the opposite to the slouch and laziness of a Cochin. These results prove the strong probability that the Black Java Fowl, used first by Mr. Spaulding, was also used by other breeders for crossing purposes in the New England States in the years before the type was properly fixed, much more heavily than Mr. Lewis Wright assumes; and also that, though described by Mr. Ramsdell as a clean-legged bird, some few specimens, no doubt, must have carried a slight leg-feathering, otherwise where do the few feathers occasionally seen on the legs of an odd chick in every strain come from? It may be argued that these Black Java Fowls were a cross between Cochins and Malays; but Mr. Ramsdell's description of the leg colour does away with that theory, as he says that the legs were of a dark, slate colour, and the bottom of the feet yellow; whereas, if they were the produce of a Cochin-Malay cross, the legs would have been yellow throughout. From all we can learn, and from the surer evidence of the present-day descendants approaching the Croad type of Langshan far more closely than they do the Cochin, it seems very feasible to believe that this Black Java Fowl was a bird akin to what a cross between the Langshan and the Malay would produce, and in all probability had some of the blood of both in its composition. In the early fifties many shipments were made to the States of all sorts and kinds of big Fowls from almost every quarter of Eastern Asia, and there can be no doubt but that these were crossed and re-crossed again and again, so that it is quite fair to assume that the Black Java itself was a cross-bred originally. I know I am treading on dangerous ground (and that by some Langshanites I will be accused of rank heresy) in even assuming that so long as forty years ago birds from the Langshan district of North China found their way to either South-eastern Asia or the States; but it must be remembered that at that time the 'hen fever' was booming in U.S.A., and that when 'the now common saw, 'Shanghai Roosters grow so tall, you cannot hear them crow at all,' originated, as it did about that time, in the vicinity of New York State, 'Yankee' skippers were scouring the Asiatic coasts, from Corea to India, for fresh novelties, and taking home all sorts of new breeds of all shapes, colours, and sizes. It must not be supposed that the type used in the composition of the Black Java Fowl was of the same type as the present-day Langshan, as in cultivating length of shank and fineness of bone, breeders have lately gone to extremes with this breed, and produced a large proportion of 'slab-sided weeds' on stilts. But the ancestor of the Plymouth Rock, as exhibited in his descendants' conformation, has been a bird more approaching the Langshan type of some ten years ago—medium in length of shank, deeper in breast, shorter in back, and smaller in tail than the present-day standard. That in ages past Langshans and all Cochins sprang from the one common stock there cannot be much reason to doubt; but as the two strains were bred for many generations under totally different environments, the fact remains that when first introduced to Europe and America they were in the form of two distinct types of the one original race, and that these types have become further and further apart in the hands of modern breeders is only a natural consequence. The

other Rock ancestor, the Dominique, is indigenous to North America, and the beautiful blue plumage of the Barred Variety is inherited from this source, the Dominique being a cuckoo-marked bird, rather lighter in colour than the Standard Rock of to-day, of medium size (cocks about eight pounds, hens about six pounds), following the Dorking model in shape, with rose combs, and bright yellow legs. They are sprightly in disposition, great foragers, excellent layers, and very hardy. Before the advent of Rocks, Dominiques were very popular in the Northern States; but as the new breed blossomed forth, retaining all the Dominique's best points, and with the additional advantages of increased size and beauty, better table qualities, and more breast meat, Dominiques became, comparatively speaking, neglected, their more valuable descendants taking their place in public favour. That the originators used Dominique males and Java females most breeders agree, as in all the American strains the black chicks thrown are invariably pullets (and there are still a small proportion of black sports thrown by every strain); but it is next door to impossible to get a wholly black cockerel when breeding from purely Barred birds or from a Barred cock with black hens, this reversion of the progeny favouring a strong conclusion that in the original the male was barred and the female black, as it has been proved again and again by Poultry breeders, that in ninety per cent. of cases colour and markings are derived from the male bird. In some very rare instances a black cockerel is thrown with silvery hackles, but this is only where modern English blood has been introduced, it being a well-known fact that in England of late years Minorca cocks were used in order to darken the markings.

“Having traced the origin of the Plymouth Rock, it is necessary to give an idea of what the Standard bird of to-day should be like, after which I propose to explain the Standard, and at the same time offer a few remarks on breeding and judging. To start with, the breed is now pretty well on the top rung of the ladder as general utility fowls, unsurpassed by any other breed for size and weight, combined with their great broad and deep chests closely packed with the best of breast meat. They are a magnificent table bird, and although for the diet of an invalid, one or other of the smaller and more delicate breeds may be preferred by some, still the Rocks, with their extra tender, juicy flesh, are fit for any epicure, and off the breast of a six months old cockerel a family of aldermen might be fed and satisfied. Combined with their great table reputation they hold the palm as egg-producers among the big breeds, having inherited this quality from their Dominique ancestors, and as winter layers they are certainly second to none. For some years I have been breeding nothing but Rocks, and during winter, when eggs were dearest, have had a splendid supply, and, though some of my neighbours have kept Mediterranean breeds, I have always managed to beat them in production of eggs per bird in winter time. Added to the above qualities, Rocks are hardy birds, and very active foragers, and are, I believe, the most payable Fowl the Farmer can keep, and, taken all round, will give results equal to, if not better than, any other breed to persons with decent-sized runs or open spaces; but I cannot recommend them to Fanciers who have only small yards, as they seldom thrive in close confinement. They were originated on farm lands in the open country, and it seems the nature to forage around is in their blood, and when their environment is changed that same nature kicks against the change.

“General Description of what a Rock Cock should be.

“A fully-matured Rock cock should weigh at least ten pounds. He should stand on four-toed stout and strong feet, and be particularly square on his pins, so that from whichever side or angle you may look at him his legs should be perpendicular, from the front view like two red gum posts, quite three inches apart, and if four all the better, and perfectly parallel from hocks to feet, shanks free from feathers, from four to five inches in length, and showing exceptional stoutness of bone. Thighs of medium length, very thick and strong; on such props should rest a very large, yet compact body, showing no angles or points anywhere, but all rounded outlines. From the crown of a fair-sized, erect head, a strong full neck and flowing hackle, gradually circling into a very broad but short back, into which, with the continuation of the circle, is fitted a small convex tail. The underline should also form the segment of a circle from the throat down past a grandly-rounded breast, very full in both breadth and depth, and continuing on round the fluff to lower side of tail. In fact, a Rock cock perfect in type when side on should present an exact half-circle both in top

and underlines, or as a well-known American Judge has written, like a 'basin above and a basin below.' The wings should be large, but well-rounded off, in conformity with the rest of the body, and covered by the hackles, both fore and aft. Covering such a bird should be a plumage with neither the tightness of an Indian Game, or the looseness of a Cochon, but a happy medium between both, and carrying rather more high feathers and fluff than the present-day Langshan. Comb single, medium in size, slightly larger than a Cochon's, fine in texture, straight and erect, with well-defined serrations. Beak thick, strong, and slightly curved. Eye hazel, large and prominent; wattles and ear-lobes of medium size and length, well-rounded off. Given a bird of, or approaching to the above type, and his appearance in the Show pen will be dignified, stately, and grand, and in the yard or open very gay and active for such a big Fowl, and perfectly erect and upright in carriage. The hen should not be less than 8 lbs. in weight, and should follow the cock in proportion throughout in conformation with the following exceptions:—The tail may be slightly more upright, but not erect enough to form an angle at junction with the back, and should be very small, and rather pointed, and the back (as is natural with hens) may be just a trifle longer in proportion than that of the cock. Thus the top line of the female will be found hardly so circular as that of the male, but the underline should describe a perfect half-circle. The wings should be so rounded off, covered by breast and cushion feathers, and beautifully fitted to the body that when at rest they should, at the distance of half a chain, be almost invisible.

“*Colour.*”

“All Rocks should have bright yellow orange legs, feet, and beaks. The deeper the orange of the shanks the handsomer the effect. The comb, face, wattles, and ear-lobes should be bright red throughout. As regards plumage three colours are at the present time recognised in the Show pen—viz., Barred Plymouth Rocks (these being the original Cuckoo variety, from which all the others have sprung), White Rocks, and Buff Rocks. Besides these three, Black Rocks will certainly be recognised in the near future, and also bred and shown as a distinct variety, and Golden Rocks are in the fusion pot, and in course of manufacture; but what will eventually come out only time and patience can tell.

The Barred Rock should be barred or cuckoo marked throughout the whole of the plumage, with alternate and regular bars or bands of blue and grey, each feather being barred from tip to butt. The barring should be far wider and more open than the pencilling of a Hamburg, and yet not so open as to be taken for a check. As a usual thing the markings of hens are larger than that of the cocks. The correct shade of the barrings is dark basalt blue, barred with ash or French grey, so that the whole may be described as a beautiful steel-blue bird, the happy medium between the too dark shade of both sexes in most English strains, and the too light shade of the early importations of American cocks. Of late years, both in America and Australia, the above Standard of blue-grey colour has been adopted as correct. In England, a darker shade is the Standard, but the objections to this will be stated later on.

“White Rocks should be snow white in plumage right throughout; the purer the white the better, and free from ticking as possible. White Rocks in the States are said to be bred from white sports from the Barred, and this is very probably correct as regards the birds bred up to about six years ago, as any Whites brought here from America were imported in the eighties, and all showed the fault of too close in-breeding, being small, fine in bone, and weak in constitution; and, as a white sport from Barred birds is a very *rara avis* (impossible in most strains), the American breeders, no doubt, had so few originals to work on that all the curses of in-breeding hung to the Whites they bred till somewhere about the commencement of the present decade. Though no importations of White Rocks have been made of recent years from the States, we learn that the variety has been improving very much of late, both as regards size and in popularity in U.S.A., and we have a shrewd suspicion that other White table breeds have been recently used in that country (as has been done here) to improve, by the elixir of entirely new blood, both the size and constitution of the old in-bred strains. White Rocks in England have been rather a misnomer as regards the birds bred and shown there as such, as it is quite evident to all that White Leghorn blood has been crossed in so heavily that English White Rocks are nothing more or less in type than big White Leghorns. A good many so-called White

Rocks have been brought to Australia from England, and they all bear the same trade marks of their parentage, viz., erect and often almost squirrel tails, ear-lobes permeated with permanent white, beef-steak combs, sloping backs, and shallow breasts. To show that these birds were not simply culls sent out by some of the breeders who think anything good enough for the Colonies, an order was sent home in either '93 or '94 by a prominent importer of White Rocks, Mr. J. W. D. Robinson, with instructions to buy the best White Rock in England, irrespective of price, to beat the then champion of Australia, "Freddy Ball," a bird bred from the locally manufactured strain. Mr. J. M. Maude, who took this order home, and who is one of the best judges of a Rock in this country, reported to Mr. Robinson that it was impossible to fill the bill, and he subsequently told me that if the old champion was sent home he would be an eye-opener to English breeders, as White Rocks in England were not in the same street for type as the "Freddy Ball" strain, and he thought they were fast deteriorating in the old country. The later importation confirms Mr. Maude's views most strongly, as they are more Leghorns than ever, and a decided loss in size as well. At the time of the first importations of White Rocks, I was breeding Barred birds, and, being taken with the attractive plumage of the Whites, determined to sell out the Barred and try to breed a new and distinct strain of Whites, altogether independent of the imported birds, and, if possible, equal in size and type to the best specimens of the Barred variety. I sold my Barred stud by auction, at an average of nearly £7 per head, and devoted some years in producing a typical White Rock. Barred and Black Rocks were the foundation stock, but one cross of both White Cochins and White Wyandottes was used to obtain the colour, and after getting a big percentage of white chickens the white cockerels thus obtained were mated with big Black Rock hens, typical in shape, in order to get back on to the Rock type. But Leghorn blood was kept out at all costs. How this strain, once fixed, succeeded in the Show pen most breeders already know; but for general information, just to show what patience can produce in building up a strain with a few years of careful breeding, and with practically nothing correct to start with, I just mention that from the time I commenced showing this strain until the disposal of the stud by auction, I succeeded in winning every championship offered for White Rocks at the principal Poultry Shows of Australia, and at the time of my sale had a record of 22 Championship points, and no other breeder with a single point. Being composed of so many crosses of blood quite foreign to each other, this strain naturally proved to be excellent layers, and at the Melbourne Exhibition Show, 1895, with a pair of White Rock cockerels, I won the first prize for *Table Export Poultry*, weighing, dressed for the table, 18 lbs., the competition being open to all breeds and all crosses. I found this strain of Whites to be a splendid general utility fowl, and when I parted with them were of capital type and sound constitution.

Bufs should be of an even rich buff throughout. This variety is got through the Buff Cochin, and was originated in the States, very few having as yet been shown in this country. They are exceptionally handsome, but, like all buff breeds of recent origin, are particularly difficult to breed even in colour, and clear in tail and flights.

Blacks—black and all-black, of a particularly brilliant green sheen, and free from white or grey ticks or feathers: All birds of a dull colour, or showing a brown or dun tinge, should be rejected. Perhaps it is a bit premature to describe what a Black Rock should be, especially as many breeders have declared that it is impossible to breed a Black Rock cock free from ticked feathers and with yellow legs; but, as I have bred a good many almost pure Black cockerels with bright orange legs and grand green sheen, when experimenting with Whites I feel satisfied that Blacks with yellow legs can be bred of both sexes, starting from Whites as the parent stock. I have now together a breeding pen of Blacks with yellow legs and brilliant green sheen, and the cockerel pure black throughout, with the exception of a grey shading on the edge of the butts of a few tail feathers. These are sports from the Goldens, but I believe that the Black Rock will come as a fixture eventually from the White Rock, as black sports from Goldens, if bred from, would probably throw many red feathers.

"Regarding my experiments to try and produce Golden Rocks, with many years of patience and care, helped by a close study of results as the seasons progress, and some little knowledge of the theory and

practice of breeding, I hope eventually to produce a Rock of true type, with plumage barred throughout with alternate bands of gold and black, or gold and grey. Some seven years have now been spent in this work, and without loss of either type or size, we have a beautiful bird with a golden ground colour, and rich green black markings. These markings are, however, at present in a very chaotic state, and quite out of hand, being diversified in splashes, ticks, squares, blotches, bars, and lacings; but the fact that there are already some feathers really barred with the desired colours almost from butt to tips is very encouraging, and strengthens the belief that I will eventually get what I am trying for. * Should I be successful I hope I will not be accused of presumption in prophesying that they will prove to be the king of Rocks, as in my humble opinion no handsomer fowl could exist than the ideal I am working for, and the Fancy can depend upon me to give them the particulars of the lines I have worked on, once I feel sure my object has been achieved.

“BREEDING AND JUDGING.

“My purpose in discussing these two headings in the one chapter is that they are both so much dependent the one on the other that it will be saving needless repetition if we take them together. I don't intend to affirm that in order to be a competent judge a man must necessarily have been a successful breeder, but a Judge should have so much of the economy of the breed he judges in his knowledge as to know the weak and the strong points of a bird, both for the breeding as well as the Show pen. On the other hand, no one can expect to become a successful breeder till they are at least a pretty fair judge of the variety they keep, as a man must know exactly what he is breeding for to have anything like a chance of producing good ones often. It so happens that the veriest novice may sometimes breed the crack youngster of the year, but this is generally sheer luck, and cannot continue unless the beginner has made a close study of his breed for some time, and this is seldom the case. Unfortunately, in a large majority of cases, too early success often spoils the new breeder, and is in reality the cause of his early relinquishing the Fancy. To start with, the birds he buys his first year, by simple good luck, happen to nick exactly, and he comes out with the champion chicks his first season. This puts him up so much in the stirrups that he imagines at once he is ‘*Boss Cockey*’ of the breed, and knows as much about them as any man in the land, but in a year or two his original pen gets broken up, and then ‘he don't know where he are.’ He tries this strain and that strain, all aimlessly and without any system, and nothing at all will nick, and at last ‘up goes the sponge,’ and he leaves the Fancy in disgust. But the beginner who starts slowly, and only succeeds in breeding champions after several years of close study, generally proves a stayer, and, by his practical experience, a valued help towards the improvement of the breed he takes up.

“Right here, before I give the why and the wherefore of the Standard, I want to testify to the immensity of good done for the breed in Australia by the Plymouth Rock Club within the past few years. Commencing operations only as recently as '93, they have instructed the Judges handling the breed at all the big Shows to stick closely to the Standard. These instructions have in nearly every instance been conscientiously carried out, with the result that the improvement and general uniformity of the Rock classes the last three years have been something marvellous as compared with the preceding years, before the Club came into existence. Prior to this birds nearly a dead black in the density of their markings—being pencilled instead of barred—were winning; and erect, big Leghorn tails and almost wholly white lobes were frequently let go by Judges as merely trivial defects, added to which, a stranger coming to Australia at that time would have thought for sure that we had gone in for a tailless breed of Rocks, as, walking down the cock and cockerel classes, simply a line of ‘Cobs’ met the gaze, and a full tail or a sickle feather to be seen was a very rare occurrence. Judges had so let this plucking of tails slide, that breeders made no attempt to breed good-coloured tails, simply taking out every badly-marked feather, and showing the birds as more or less ‘cobs.’ I well remember the strong feeling engendered, the first year I took the Rock classes at Melbourne Show, for disqualifying a well-known winner from N.S.W. He was a big fellow, of splendid type, good colour, and great bone, but

* Since writing the above, I have bred a cockerel with more than half of his plumage golden—barred throughout, viz: hackles, breast, and back and I hope to let the public see him at this season's Show.

with no more tail than a guinea pig, so I was forced to throw him clean out. Since then the influence of the Rock Club, through the decisions of their Judges, has taught breeders that they must show their birds with whole tails, never mind how many defective feathers they have, and a pulled tail is now a rarity at any decent Show. Following this, breeders have been forced to breed for better-coloured tails, and improvement is ensuing as a natural consequence. It is probable that the constitution of the Rock Club will shortly be considerably altered; but, even if the Club was now to disband, its existence for the past four years would be fully justified by the vast improvement in type developed under its auspices, and the lesson fairly rubbed into exhibitors that it is useless to pen birds nowadays unless they have some claim towards the correct shade of colour and are minus any glaring defects in type; and, if only for the reason that the Club has practically hunted birds from the Show pen shown as Rocks, but with Mediterranean type showing at every point, breeders who wish to see no retrograde movement in the future should stand by the Club, and thus help to maintain the good effected within the last four or five years, and to still further improve the breed as a whole.

“SCALE FOR JUDGING PLYMOUTH ROCKS.

“A bird perfect in shape, style, colour, and condition, and of full size, to count in points 100, and, if of extra size, 110.

	Points.
Head and beak, if perfect, to count	5
Colour of legs „ „	5
Comb and wattles „ „	5
Ear-lobes, clear of permanent white	5
Symmetry	20
Shape, size, and set-on of tail	10
Size and bone	15
Plumage	25
Condition	10
	—
	100
If of extra size, and good in type, extra points	10
	—
	110

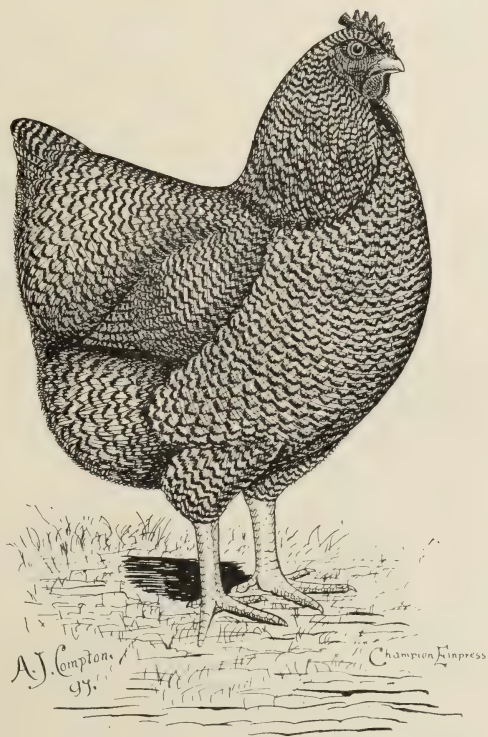
“The number of points to be deducted for each defect must be left to the discretion of the Judge, and although the above are the maximum points a bird can get credit for, the Judge, if he thinks fit, can deduct more than the number allotted to each section for any decided failure in that section.

“DISQUALIFICATIONS.

“*Legs feathered, or any other colour but yellow or orange, rose or pea combs, red feathers, coloured feathers in whites, lobes showing much permanent white, any sickle tail-feather missing, plucked tails, breast-bone badly crooked if accompanied by narrow cow hocks, decidedly wry tails, and, in fact any constitutional deformity; and if adults under Standard size, also any defect so conspicuously glaring as, in the opinion of the Judge, so bad as to throw a bird clean out.*

“Having had a hand in framing the above Standard, I believe the best plan to be adopted in the continuation of my remarks is to take each section of the Standard separately, and explain fully its relative value and defects, the why and the wherefore of same, and add at same time a few comments I have to make with regard to breeding for any of these special features.

Head and Beak, 5 points.—Only in very few instances have I seen eyebrows so overhanging in Rocks as to give the head a sour expression. *Beak.*—Size and shape are in the main good; if twisted it is a sure sign of bad constitution, and should always mean disqualification. As regards colour, inexperienced breeders are rather apt to place too much stress on this point, as hardly ever does a beak appear so badly marked as to lead the observer to believe that the ground or main colour is anything but yellow, and very



Barred Plymouth Rock Hen, "Champion Empress" (at Three Years).

Late the property of Mr. H. Huntington Peck, "Hiawatha," Pascoe Vale, Victoria. Sold to Mr. Harold Cadell, N.S.W.

"Champion Empress" was the most typical shaped Barred Hen Mr. Peck ever owned, and was bred from the late Mr. E. Poore's American importations.

often Barred birds with beautiful bright and clear orange legs show streaky beaks; and never yet have I judged a bird so black in beak as to warrant absolute disqualification, neither would I think of doing so unless the yellow tinge was entirely absent. Let us stamp out the main and harmful constitutional defects first, and then go for these trivial ones afterwards.

“In Whites and Buffs the beak *must* be clear yellow throughout.

“*Colour of Legs, 5 points.*—Here also many make a mistake in considering black spots on legs a great objection. A fault it is, no doubt; but, if the objectors only knew that in the Barred variety these same black spots, when well defined, are a certain sign of permanent and fixed barring in the plumage of a strain, no doubt their objections would soon cease. In Scotch Greys the same thing holds good, and I remember a beautifully-marked cockerel of this breed with his legs from hock to heel checked like a draught-board. Whole willow or greeny-yellow legs are bad, as it is readily transmitted to the progeny. Don't allow willow-shaded stock into the breeding pen, and if wielding the judging stick, don't, if possible, let a cock, cockerel, or hen showing this fault in a decided degree, get a card. With pullets it is not such a radical defect, as with age they will sometimes improve wonderfully in this respect. In Whites or Buffs the decided willow tinge is a clear disqualification. But Judges for a few years will have to deal leniently with this fault in Black Rocks when they come into fashion, though in this variety bright orange legs will be a great recommendation. In some strains, more especially in Whites, a pinky-red tinge is often noticeable at the sides of the shanks and between the toes, the rest of the legs being sound yellow. This is not a serious defect, and even if using a cock so marked, of such great constitution that he stamps nearly all his offspring with the undeniable likeness of himself, this red shading will be only transmitted in a very few instances. When in the moult, all Rocks pale off considerably in colour of both legs and beak, and if running on country where they cannot obtain green food, will at this time of year go so nearly white that only on very close examination, and sometimes only by brisk rubbing or chafing, can any yellow shade be detected. But if, out of the moulting season, white legs without any trace of yellow whatever are met with, then these must be passed both by Judge and breeder, as it would be just as feasible to call a bird a Rock that has whole black, or even blue legs, as white ones. Some Agricultural Societies tack on a Poultry Section to their Shows held right in the middle of the moulting season, and if a Judge finds himself in the unenviable position of having to adjudicate at such a juncture he must take special pains, and in his examination of leg-colour should only satisfy himself by the strictest scrutiny and close handling of every bird having a chance of a place.

“The old time notion that only fowls with white skins and white legs were really good table breeds, has been proved over and over again to be a pure fallacy. In the States, where more Poultry is consumed per head than in perhaps any other country in the universe, yellow legs and skins are the most popular for the table. And even in Conservative England, where the craze against yellow skins for so long raged, public opinion has changed, and the most fashionable table fowl in the old country to-day, the Indian Game Fowl, is a yellow-skinned bird. In 1896, of all the birds sent home from Australia, yellow skins and legs came out on top; for Mr. Ed. Maxfield, of Flynn's Creek, Gippsland, with Plymouth Rocks obtained the highest average in the London market, beating all other breeds. The flesh beneath a yellow skin is by nature more juicy, rich, and full-flavoured than that covered by a skin of any other colour. All breeders of beef-producing cattle know that every Shorthorn and Hereford beast with a yellow skin and waxy, yellow horn is stamped with the trademark of mellowness and richness of flesh; the one is a *sine qua non* of the other. The same law of nature is common to all our domesticated flesh-making machines, whether they walk on four legs or on two; and with this strong recommendation Rock breeders should rest satisfied, knowing that their birds are *hall-marked* rich flesh-carriers at sight.

“*Comb and Wattles, 5 points.*—These in Rocks are generally level and good. The exceptions are when Mediterranean blood is present, the wattles then being generally altogether too big, long, and pendent, and the comb as large as an average beefsteak, these enormities being altogether foreign to the nature of good table Fowls, are not wanted in a Rock. Hardly ever are comb and wattles on a Rock shown too small. In

the few cases I have seen they have been the result of shrinking, owing to the bird being in bad condition, but birds in bad condition have no right at a Show.

“*Ear-lobes clear of Permanent White, 5 points.*—Another section in which the ‘trail of the serpent’ of Mediterranean blood has caused nearly all the trouble, as evidenced by the facts, that the American strains have been singularly free from this defect, while the birds that have been badly affected have had heavy crosses of the English strains, showing Minorca taint in the Barred, and Leghorn in the White variety. Never breed from a bird showing permanent white in the lobes, unless limited to a few specks, as it is extremely difficult to breed out, and the least sign of this must seriously handicap a bird in any close competition, and if one-third or more really permanent white should disqualify, and as the lobes of many hens and pullets are closely folded, this is another point that requires the closest attention. But do not confound permanent white with temporary white, as may be done if criticising in a hurry, as the one is a dangerous fixture, and the other often caused by a bird being off in condition, or fairly done up or tired out, either from over-showing or the undue length of many Shows. Again and again, going through the Rock classes on the first morning of a Show, one will see nearly every lobe as red as a red rose; but after a couple of days, when birds commence to tire, many of these same birds’ lobes appear quite pale, and some of them may easily be mistaken for permanent white. If at all uncertain, the only plan is to handle every doubtful specimen, and test carefully. This may be done by holding the head slightly lower than the body, thus letting the blood run into the lobes. If the white is only temporary, this test will quickly cause the lobe to resume its natural red colour; but if of a permanent nature, nothing but cutting the affected part clean out will remove the objectionable white. This cutting out, or off, of permanent white in lobes is certainly very rare in Rock classes in Australia, as, with a certain ‘stand down’ for a number of years if detected, the game is not worth the candle; but I have suspected this game once or twice, and if judging birds showing signs of Mediterranean type, always look out that the lobes are whole, and unmeddled with.

Type, 45 to 55 points, comprising

	Points.
Size and bone	15 (if extra large, 25)
Symmetry	20
Shape, size, and set-on of tail	10

“These three sections may be taken under one heading, as combined they form that pre-eminent part in the description of a Rock known as type, and taking into consideration the fact that the Standard allots to this section a possible 55 points, even a novice can quickly note the stress laid on the *importance* of correct type. Some, perhaps, may argue that size and bone should not be included under type; but unless a bird is big and of good bone, he is not a typical Rock, and never mind how symmetrical, truly shaped, and correctly marked, if small must be discarded, as we want to advance towards turkey weights, and not to recede by breeding pretty little in-bred *gone-backs*. It cannot be emphasised too strongly that the typical Rock is a big hardy-constitutioned, general utility Fowl, a bird that by its wonderful capacity to put on thick flesh will improve our export trade, and at the same time lay as many, if not more eggs than any other table breed, and, with these two talents combined in the one carcass, will earn its oats with any Fowl living, and be a real help to the Farmer in paying the rent, or wiping off the mortgage. That is why so especially in Rocks, type, and plenty of it, must take precedence of, and get more credit than mere Fancy Points. Some authorities are content with 9 lbs. as the minimum weight for an adult cock; but as it is as easy, if working on proper lines, to breed Rocks over 10 lbs. as over 9 lbs., and every pound of increase in the average weight adds greatly to the value of the breed as a Table Fowl, we are quite justified in fixing 10 lbs. as the minimum for adult cocks, and 8 lbs. for hens. Cocks of 12 lbs. or over, and hens of 10 lbs. or more, if of good type, and good in other respects, should be allotted 10 points extra for increase in size. Good bone is a strong point, being one of the surest indications in this breed of sound constitution. So for this reason alone it claims a high position; but when it is remembered that in the economy of all living branches of Nature, whether it be man, beast, fish or fowl, heavy flesh-carrying capabilities always follow good and

heavy bone, it is clearly palpable why all who have been authorities on Rocks right from the inception of the breed have insisted on good bone. Then it is essential that with the true typical-shaped Rock body, thick, deep, and round, the legs as well as being especially heavy in bone, must be wide apart at hocks, and continue right down like two parallel bars set on end; but given this beautiful, big, rounded-off, typical body, and good bone and correct set of legs are nearly always found in company. On the other hand, light bone nearly always accompanies bad type and its almost certain attendants—weak constitution, long sloping backs, shallow chests, and narrow cow-hocks, or knock-knees (meaning, also, contracted breasts, unable to carry a decent quantity of breast meat). Remember always that sound and strong constitution should always be the first consideration of a breeder. Establish this in your yards, and you can always sell with a clear conscience; stick to it, and your strain must soon obtain a reputation that will pay far better than in-breeding for some unimportant Fancy Points, and producing thereby birds that, though, perhaps, beautifully marked, when exposed to rough weather, or forced to hustle for their food for a few days, will almost certainly break down in health, and soon die. Also, remember that the breadth, depth, and width of breast, allowing plenty of lung room, wide hocks, and big-boned straight legs are the surest indications possible of sound and healthy constitution. Crooked breasts in Rocks, like all other weighty breeds, are often caused in chickenhood by narrow and high perches. Therefore, breeders should always locate these close to the ground, and *never under 3 inches in width*. But if breasts decidedly crooked, and especially across the centre, and at the same time accompanied by narrow hocks, it is a common sign of in-breeding and weak constitution, and should then be in nearly every case a disqualification. *Re* shape, size, and set-on of tail: This is, of course, naturally a point in symmetry, and, including it, the section in the Standard has credit for 30 points; but, prior to the formation of the Rock Club, some breeders here seemed to have a very hazy idea of what a Rock's tail should be, and the Club felt that it was so emphatically necessary to impress upon breeders what should be the *correct* tail that they decided to make a sub-section of it.

“Five years ago, big, erect tails, forming a sharp right angle at junction with back, were so frightfully common, that some people who had not studied Rock lore, but who believed themselves experts, actually asserted that this was a very unimportant point, as long as the colour was right. Certainly, they belonged to the school who always defended the type showing sure signs of Mediterranean blood, of which these high erect tails were one of the trade marks. Had these same gentlemen known that the leading American authorities, ever since the breed came into existence, have all united in insisting on a small conical-shaped tail, fitting into back with a circular sweep; and that the eminent English breeder who edited Mr. Joseph Wallace's American pamphlet on Rocks, was emphatic in backing up his opinion on this subject, and at the same time expressed his horror of a tail forming an angle at junction with the back, almost going so far as to label it a disqualification when so shaped; they, no doubt, would have recognised their errors a little earlier, and less to their cost, than by having it forced home to them by the almost continued rejection of their erect-tailed specimens by the Club Judges. The monstrosities of a few years ago have almost totally disappeared from the Show pens nowadays, but one or two Judges are not so severe as they might be on this defect still. They should keep in mind that it is radically wrong as regards the true type, and handicap all bad-tailed birds accordingly. Certainly, tails are wonderfully on the improve, especially in males, which were always worse than females in the past; but there is room for much improvement yet in a very large majority of cases, and I would sooner place a bird with a mixed coloured tail than one too big, and carried in the wrong direction. Hens, as a rule, are far better in tail than cocks, but being so much smaller in that appendage when they are wrong, the defect is not nearly so noticeable; but that is no reason why Judges should not be equally as severe with a glaring case in hens as in cocks. Progeny, with very few exceptions, get their shape from the female, and in the breeding pen true type is actually of more importance in the hen than in the cock. Very few hens carry their tails so high as to form a sharp acute angle at junction with the back. In such cases, absolute disqualification should ensue, as they are almost worthless for the breeding pen. With females, a common fault is a big, high, full tail (generally known as fan-tailed hens) though circular

at junction with back. These tails are carried far too high, are too big, and behind are wide open and full, instead of folding neat and close on top. Very often hens and pullets are met with of almost perfect shape in other respects, but which have their wings so tightly clipped into the plumage, and carried so high that the saddle, instead of being very broad as it should be, is pinched almost across the centre into a very narrow space, and altogether spoils the uniformity of the back. This fault is most common in specimens that are too narrow throughout, and is, consequently, often not noticed; but when it appears in big, broad hens it is very noticeable. A hen's wings must not be carried loose, and on the droop; nor should they be so high and tightly jammed into the saddle as to result in the above unsightly appearance, but the happy medium is to have them so gracefully folded and hidden in the plumage of the breast and saddle that at a few yards' distance the conformation of the wings is altogether lost in the beautifully rounded appearance of the whole body. In cocks, we have seen a few cases of big, massive, wide-breasted, deep-bodied birds on A1 legs, with, somehow, almost unexplainable narrow backs, though the bird is excellent otherwise. This is a clear break away from type, and must be penalised. Such shaped cocks have puzzled me considerably, as to how a bird, otherwise so true to type, will occasionally come so palpably wrong in such an important particular, as in all Nature the broad, wide back follows the deep, broad breast almost as truly as night follows day; but, after close study, the only conclusion I can come to is, that these unnatural-shaped birds are the direct descendants of the above pinch-backed hens, and that the defect is more deep-seated than most people imagine, the superficial jamming-in of the wings being only the result of cause and effect, the cause being an actual pinching or narrowing-in of the back across the saddle (though the shoulders and front part of the back may be wide), and the tight clipped wings fitting into the cavity only the effect. A very slight cushion is allowable in females, but for my own part I would sooner see them without any, as broad backs can be bred just as well without cushion as with it. Roach back is a very rare thing in Rock cocks, but occasionally is present in hens. If the back itself is actually roached, it is a case of throw out; but very often that which appears to the eye as a certain case of roach back, only turns out on handling to be an abnormal carriage and length of plumage, with the back itself perfectly right. In such a case it is only a minor defect; but for the above reason it is imperative to handle all suspected cases. Too much credit is often given for a gay, lively appearance in the Show pen. It is against Nature to suppose that a bird of the weight, stamp, and type of a true Rock can dance a break-down in the narrow confines of a Show pen. Though the product of Brother Jonathan, the Rock is a regular John Bull in type, with a firm grip and title to a very fair proportion of his Mother Earth, and when caged up his proper appearance is a grand, splendid stolidity, and quite the reverse of the Jack-in-the-box, natural *La Galle* style of the Mediterranean breeds. A Rock, if of too gay carriage in the Show pen, though carrying his tail fairly well, will always, when set at liberty, run it up another inch or two higher, and more forward, and though you would pass the same gentleman in the pen, and, perhaps, give him a card, his carriage of tail if seen in the yard would horrify you to think you had let such a squirrel tail slip you up. For this reason I am always suspicious of these corky customers in the pens, and keep right off them wherever possible. Though a bird may appear of a too stubborn and solemn disposition in the pen, if both equal otherwise, I would put him before a too gay one, simply because I have had it driven home, from long experience, that all Rocks are by nature far livelier and gayer birds in the yard than in the pen. As I remarked in the early part of this article, they hate confinement, and I am positive are possessed of a fair share of stubbornness as a breed, and when boxed up (like their prototype, John Bull) they trot out a good big lump of this same stubbornness, and let you know they've got it. These stubborn, bored-out, sober-looking chaps in the pen are invariably grand active fellows outside, when rejoicing in the freedom of unlimited space and you could catch half-a-dozen Cochins or Dorkings before you could snap a single Rock when on his own ranch. -Breeding for gayness, stiltiness, and reach has well nigh ruined what was one of our most beautiful and useful breeds, and though I don't pose as a Specialist Judge of Andalusians, one need not have been a very close observer to know that the full-breasted birds of a few years ago, with their beautiful lacing, were far handsomer, far more weighty and massive, and altogether a more attractive and useful Fowl than the stilty, spindle-shanked, narrow-breasted, narrow-backed substitutes

which are called Andalusians nowadays, and I believe the old attractive type were quite as good at filling the egg basket as the repellent type fashionable to-day. Some breeders are trying very hard, both by precept and example, to force Rocks into this wrong track too, and have so long been breeding Mediterranean types, that they cannot imagine a Rock correct unless he is a corky, narrow, erect-tailed, sloping-backed stilt. Now, this has to be prevented, and if my influence has any weight, a few years will suffice to clear these weeds out altogether. I spent a few years in hunting Leghorn type out of whites, and the type of the white chickens shown at Melbourne and Williamstown Shows last season prove that my time was not wasted. Whatever the supporters of the Mediterranean type say to the contrary, the true type of Rock will lay just as many eggs in any season, and more in the winter, than the narrow-backed, shallow-chested, Leghorn-tailed kind, and as a table Fowl there is no comparison whatever.

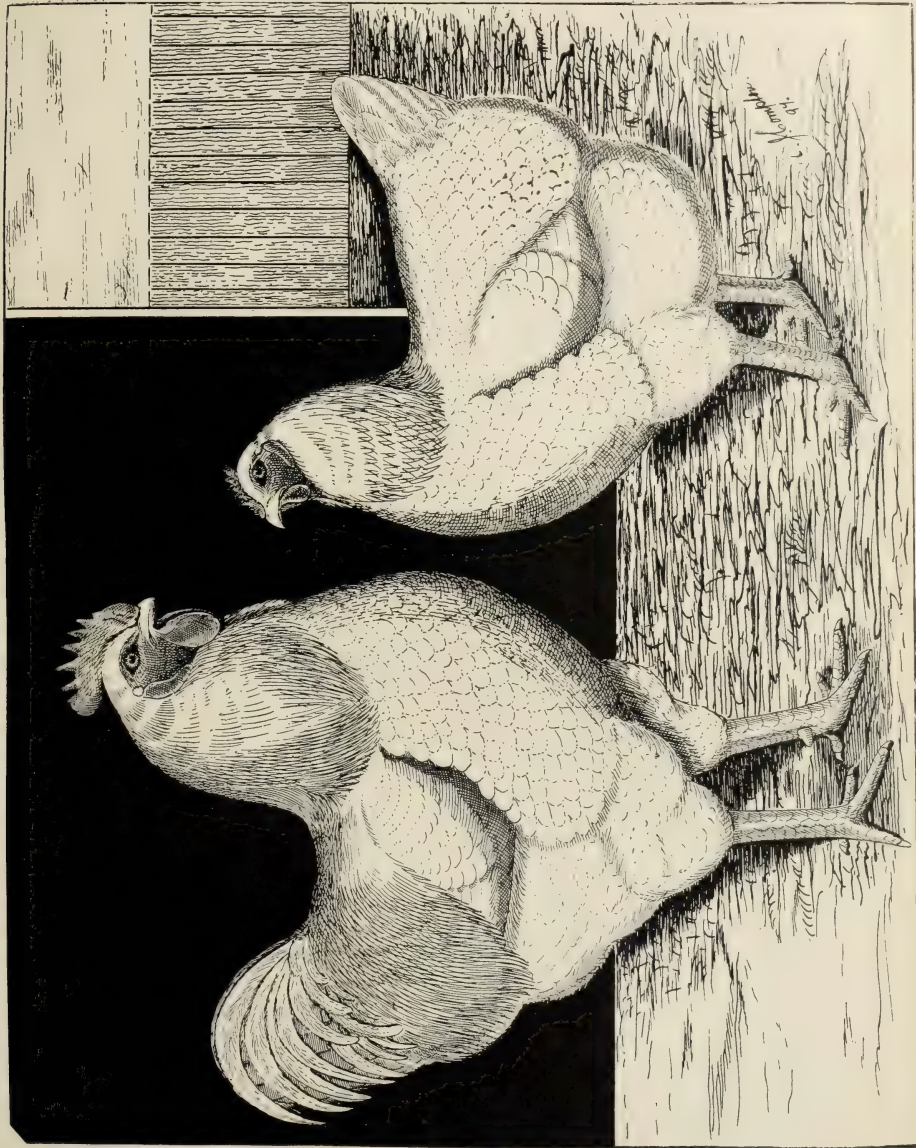
“Just to instance what the proper type will do in the way of egg-producing, I will quote two cases that I remember on the spur of the moment without hunting up further records. The first was with old ‘Champion Pet’ as a pullet. I started taking her record about the end of August, ’90, though she had been laying for some weeks previously, and by the autumn, when she started to moult, she had laid between 150 and 160 eggs without a break, and she was a great big, broad hen, weighing 12 lbs. in condition, and was the champion hen of the colony for two years. The other instance was the white pullet, ‘Dulce,’ a very short-legged one, out of that crack Show hen, ‘Sweetie,’ by Champion ‘Alick Dick.’ This pullet Mr. H. Treganowan purchased at my clearing sale of Whites in June, 1896, and that gentleman writes me that she laid 100 eggs in 118 consecutive days, and then was killed by an accident. The above records are from birds of the correct type, and would be hard to excel by any other breed.

“*Plumage, 25 Points.*—This section ranks next in importance to type. Some would give it the preference, but this is radically wrong, as a Barred Rock cock, as regards colour, is a wonderfully impressive fellow, and, never mind what breed and colour of hens are placed with him, fully 75 per cent. of the chickens will come out barred like their sire, and most probably many with the correct shade of colour, though in shape and type they are anything and everything but Rocks. Therefore, before we go any further into the subject of plumage, I cannot impress the fact too forcibly on all my readers that, never mind how beautifully marked and true to colour a bird may be, it cannot be a good Rock unless following true Rock type. At the 1894 Intercolonial Show in an adjacent Colony a big hen was shown of magnificent colour and markings throughout, with rich yellow legs and of splendid bone, but without a scintilla of Rock type, in fact almost a Malay. Somehow the Judge got on to her going for plumage in preference to type, and she came out first in a grand class, beating Messrs. Franklin Bros.’ wonderful champion (bred by Mrs. S. Tremlett), certainly the best Show hen ever seen in Australia, and never before beaten. All the Poultry papers quickly called attention to the mistake; and in some ways this error, I believe, actually did good in the long run, as it was a splendid advertisement of the absolute necessity of type being recognised before plumage, all the critics for once seeing eye to eye. At the same Show the following year I happened to wield the stick, and in a weak class I had to pass the same hen clean by as a Barred Malay; certainly I had never seen a better coloured one, and but very few worse in type. In both the Show and breeding pen size, bone, constitution, and symmetry (otherwise type) must be the first considerations, and plumage follows. A barred bird of the correct shades of colour and evenly marked is indeed a beautiful picture. Basalt blue, barred with ash or French grey, or bands of light steel blue, is the best way of describing the proper plumage. The commonest faults in colour are *black barred with white* in both sexes; brownish, dead, sooty barrings, more especially in hens, and decided brassy hackles and backs in cocks; whole or partially white or black feathers in the tails of the males, and white flights in both sexes. The black and white barring is the hardest of these to deal with, simply because so many, in ignorance or colour blindness, consider it the right shade. Black and white barrings have always been written down by all authorities, and they are no easier to breed than the true blue birds, so why so many breeders keep popping up at Shows with these black and white specimens is difficult to understand; but in all probability, the misunderstanding has arisen from the craze of a few years ago, both in England and in this country, for dark birds. Prior to this period many cocks were shown (though grand, big, typical fellows

otherwise) too light and undecided in colour, and in order to correct this, fashion flew to the opposite extreme, and some seven or eight years back birds were to be seen winning, so decidedly black that at a distance of a few yards they looked like a whole bronzy-black fowl. The lighter colour in the barring disappeared, or was of a bronzy-brown shade, and one had to get to close quarters to recognise that they were actually barred birds. One of the most fatal objections to these black and white barred birds is that they so often throw black and brown barred specimens, also a very large proportion of wholly black sports. Black-brown birds, through the onslaught of the Club, are pretty well now extinct, but their trail remains, and must be stamped out altogether. The darker a bird comes the more the black predominates, and the barring in hens too dark is pretty well always very uneven and blotchy, while the really blue hens are noted for the beautiful uniformity of their barring right throughout. A fault, too often seen, in some females, though they are almost a true blue in shade, is to have the edges of the darker barring tinted with an ugly dead, sooty brown. This generally requires a good light to detect, and is one of the main reasons why Barred Rocks should always be judged in a perfect light. Hens showing this brown shading are collateral with cocks with brassy hackles and decidedly brown backs. This brown and brass, being difficult to breed out, is a serious defect; but, once into summer, a Judge cannot take so much notice of it as he would in the winter and spring Shows, as in this country the heat of the sun is so intense in summer (and not one exhibitor in a hundred housing his fowls) that birds running out become quickly tanned on the back. Should, however, the brown or brass show down the sides, or in any place where the sun can have little or no effect in discolouring the plumage, the defect is hereditary and difficult to eradicate, being in the blood of the bird. A help, when in doubt as to whether this is a permanent defect or merely a temporary one, is to examine the flights, and if the dark bars are found to be of a decided bronze or brown shade the examiner may rest assured and fully satisfied that the bird is naturally faulty.

“A cock with a really good blue tail, uniformly barred throughout, is, I am sorry to say, of very rare occurrence, whole or partially white or black feathers in tail being generally nearly as plentiful as barred ones. Only of recent years have breeders, here, attempted to breed for sound, good colour of tail, the old practice of removing all off-coloured feathers (even to the sickles) and showing cobs being winked at so long that breeders became careless on the subject, but now that tails are considered necessary in the Show pen there is a strong inducement for improvement in this direction, and I feel sure it is already on the mend. All faulty tails, as regards white feathers, get still further worse with age. A feather which is only white for an inch at the butt, and showing correct barrings, on the whole length exposed, as a cockerel, will be white for half its length in the bird's second year, and probably wholly white the third year. As regards improvement, a cock with a good blue tail well barred throughout, and with sound flights, and especially if in his second or third season, is an invaluable bird in the breeding pen; but, though colour and markings are in the main derived from the male, it must not be supposed that the female is wholly without any influence on the progeny in this respect. If breeders would be more particular, and only breed from hens that are quite free of white in flights, and which have their tail-barring of a pronounced character right to the tips, I think they would quickly find their cockerels coming with better tails both in colour and barring. A very large proportion of the hens and pullets in the Show pens, though they seldom or never show off coloured feathers in tails, will be found on close observation to have white in flights, and the barring of their tail feathers (and especially towards the tip) of a very smudgy and undecided nature; these are the ladies who throw black and white tailed cockerels. Cockerels with a large proportion of black feathers in tail are generally bred from dark hens too blotchy and cloudy in markings. In close competition a Judge should always examine for white in flights. In males it is so accompanied with white in tail, that I am positive white flights must be eradicated before we can hope to see many sound in tail.

“White Rocks have naturally few faults in plumage, and with both Whites and Buffs the defects to steer clear of are those noticeable with these colours in all breeds. Grey and black ticking in Whites is sometimes very marked, and on close examination (like the blue shade in many Orpingtons) will be found so distributed as to indicate the predominance of the blood of the Barred variety. Such ticking is wrong, and



White Plymouth Rocks.

where a contest is close the least sign of ticking is a big discount. White cocks, when running out, will tan very early in the season on both back and hackles, and in pullets and hens the hackle feathers also ; there are, however, some birds which possess a natural light yellow tint right throughout, somewhat similar in shade to that of the Pekin duck. This Pekin shading must be stamped out. These yellow or tinted birds turn a bright orange on the top colour when exposed to the sun for any length of time. Birds naturally of this colour can easily be detected by opening the plumage and examining the under-feathers, which will, if faulty in this respect, be almost a clear yellow right down to the skin.

“*Condition, 10 Points.*—This is an important factor in the Show pen, as no bird has a right to be exhibited unless fit and well. One of the principal objects in holding Shows is to bring before the notice of the public the perfection pure stock can be brought to by careful selection, mating, and breeding, and their vast superiority over the ordinary domestic specimens, which are bred and reared anyhow ; and, never mind how good a man's stock may be, if he is careless, and pens them dirty or in bad condition, he is assisting to defeat that object, and deserves to suffer accordingly, and it is only justice to the exhibitor who is painstaking and shows his stock in top condition and full of bloom, thus helping on the success of the Show, for the Judge to give him due credit for his efforts. Birds suffering from unmistakable contagious diseases are not unknown at our Shows, and in such cases birds disqualified on this head should earn their owner's disqualification also for a period of at least twelve months.

“Having finished the dissection of the Standard, I shall conclude with a few hints for the guidance of Rock breeders. Foremost and before everything else in your yards see that you have a strain with a good and sound constitution. Remember that sound constitution in a strain means hardiness and health, and consequent ability to fill the egg basket far quicker than a weak or delicate strain (never mind how beautiful), that will turn sickly at the least hardship ; and also at the same time ability to lay on and carry a large amount of succulent flesh. Compelled as I am, in my calling, to travel constantly in the country districts, I have ceased to wonder at the cry of the Farmer that Poultry won't pay. Why, if they paid as little attention to the breeding of their horses, cattle, and sheep, as they do to their Poultry, they would soon find themselves in the Insolvency Court. In-breeding is the curse of 90 per cent. of the Poultry flocks of Australia, and to one who has good, healthy Fowls, it is a sickening sight to visit Farm after Farm, and find a lot of in-bred sickly weeds, so in-bred and in-bred for generations that they have gone back 4 or 5 lbs. in weight, and deteriorated in every character. Twisted and undershot beaks, roach backs, crooked shallow breasts, wry tails, cow hocks, spindle legs, light bone, and flat slab-sides. These are the sure accompaniments and signs of in-breeding, and with all these death's-heads present in his flock of Poultry, and every specimen as narrow as a rail, and their blood chock full of hereditary roup and tuberculosis, the Farmer wonders and complains that they don't pay. He might as well breed his Clydesdales down to the size of Shetlands, and then just as reasonably expect them to draw a two-ton load, as he should expect his in-bred Fowls to fill the egg basket. Every student of breeding knows that constant in-breeding limits production, and it is against Nature to suppose that an in-bred flock can be good layers. With an almost perfect climate for the purpose, the South-eastern portion of Australia should be in a position to rival France in the production of table Poultry for the English market. Our Governments are to be commended for the money they have expended, and their honest endeavours to establish an export Poultry trade on a sound basis ; but this can never be, until the evil of in-breeding is tackled, and stamped out at its very root. Really practical experts have been appointed to act at the freezing stores, their business being, to block Poultry unfit for consumption being exported ; but if the *powers that be* can only be induced to show the Farmers (the class who raise fully 75 per cent. of the Poultry of this country) where they are wrong, and if they won't breed healthy Fowls, deny them the right of keeping Poultry altogether, our export turnover might soon be increased fourfold, and the experts at the stores find far less *rejects* than they do with the present limited supply. If a dairyman or a grazier let his herd of cattle get as full of *Tuberculosis*, as pretty well half of the Farmer's Poultry flocks are of the same disease and roup, it would simply spell ruin to any man of moderate means. It was always bad business to let a man's stock deteriorate till

hereditary disease got a good grip ; but of late years the inspection of cattle has been so thorough that even the careless breeder has had to reform, and Poultry breeding should be looked after on the same lines.

“ Inspection at the market and port of export is all very well ; but when reforms in our meat and milk trade were demanded, and carried through, some little time ago, the Government found that, in order to properly carry these out, they had to go right to the fountain-head, and insist on regular and systematic inspection of all dairy and breeding herds by trained experts on the properties.

“ Now, my contention is, that if ever we wish to see our export Poultry trade placed on a thoroughly sound footing, and turned into the valuable asset it should be, the Government will have to appoint just as practical men to act at the one end of the business as they already have at the other. Let these men educate the Farmer, so that they can see where they are wrong, and show them plainly how, by continued introduction of fresh blood, they can get on the right track to get sound constitution into their Poultry flocks, and, as naturally follows, healthy table birds, and plenty of eggs ; and let every flock, that is so full of hereditary diseases that it is past redemption, and every flock that is contaminated, and with which the owner refuses to attempt to reform, be compulsorily destroyed, as unfit to encumber the ground, as, while the present state of things exist, such disease-infested stock are but doing harm to the good name of Poultry in general, and at the same time acting as one of the stumbling blocks to the material advancement of this fair country.

“ I am sorry to have to bear testimony to the fact that too close in-breeding for Fancy Points has also ruined and crippled many a yard of pure Poultry from a utility point of view. Many Fanciers have had to bitterly rue the day when, tempted to place too much value on a temporary craze for the unnecessary elaboration of some Fancy Point, they have gone once too oft to the ‘ well of in-breeding,’ with the consequent result that they have lost from their strain that pre-eminent characteristic of health—viz., constitution, and also (as naturally follows when constitution is gone) loss of egg and flesh-producing powers. This is a ‘ pretty kettle of fish ’ for any breeder to get his strain into, and my purpose is to tell him how to get out, and at the same time give a warning to others to steer clear of such glue pots. To put constitution into an enfeebled strain, we must have new blood, and let such blood be as distinct as possible from your own strain. I know this advice alone, before I go a line further on this subject, will bring the disciples of the school of in-breeding down on me *en masse*, with assertions that such vigorous out-crossing is bound to endanger their pet Fancy Points, and also type as well, and will result in a lot of the progeny throwing back to the types of the birds the breed was made from. But if the foregoing ‘ gets their hair off,’ they will, probably, go into horrors over the unorthodoxy (from their point of view) of my experiences on this subject, when I add, that in casting about for fresh blood to put new life into a strain (if birds of a thoroughly reliable and distinct strain of the same colour cannot be obtained), I would sooner work on another colour, or even introduce a Wyandotte cross for the purpose, than chance birds that, for all you can find out, may be closely related to your own, and if used, help you very little, or not at all, in your trouble. That my opinions are not mere theory, but have been forced upon me by years of practical experience in experimenting with Rocks of several colours, most Fanciers in this country already know, and this has taught me that with Plymouth Rocks, if out-crossed for one generation with any other table breed (at all similar in conformation), type, colour, or any other valuable points need not be endangered. The statement is the result of facts within my own knowledge and experience. ‘ Rome was not built in a day,’ however, and a breeder working on these lines must not expect anything fit for the Show pen in too much of a hurry. If he obtains any Show specimens the second year he will be lucky ; but patience will reward him, very probably, in his third year, with a fair percentage of typical birds, and possessed of a sound constitution and vigour, and with an increase in size and bone which he could never possibly have obtained by working on the old lines. The first time I tried an out-cross of another table breed on Rocks, I did not obtain a single chicken of true type or correct colour in the first season ; but the second season I had 8 per cent. right in both respects, and the third season went with a bound to 80 per cent. of good coloured and typical chickens.

“In this out-cross breeding, just as much or more care is necessary, in selecting the breeding pen, as if typical birds were being put together with the object of producing Show specimens the first season.

“Let the cock be of the colour you want to perpetuate, as correct in shade and (if breeding for barred) as even in markings as you can possibly get, and also select a bird with good type, the reasons for using an out-cross being to secure more vitality and vigour, and also for increased size. It may be taken for granted that your own strain is more or less deficient in these points, and therefore the hens you start with must be especially big, roomy, deep and wide in breast, wide at hocks, straight in the legs, and really good in bone, showing unmistakably all the characteristics of sound constitution; and the male bird, as he has to a very great extent to be the founder of the new strain and the progenitor of the general Rock points, *must excel in colour and symmetry*. Breeding for Barred, use for preference, as an out-cross, *White Rock hens*; failing these, *have no hesitation in using White Wyandottes*. Critics will argue that Wyandottes, being smaller than Rocks, this cross will result in loss of size; but experience will quickly prove that the infusion of new blood so entirely distinct will result in progeny out-classing in size both sides of the parentage. Most Wyandottes, and especially Whites, excel in that beautiful roundness and fullness of outline which is so sadly deficient in many strains of Rocks, and for the improvement to be gained in this particular alone I am very partial to a Wyandotte cross, and have been wonderfully successful with it on several occasions in my own yards. So many White Wyandotte strains being closely related to Silvers, the striped hackle of the latter will often appear in some of the progeny, in breeding for Barred, for a couple of generations, but careful selection will soon eradicate this. In out-crossing for White Rocks, it is almost immaterial which way you work the Wyandotte cross; if your birds want renewed constitution, the Rock cock on to Wyandotte hens, but if you require size only reverse the order, and place a Wyandotte cock with the Rock hens, and the latter will be found the quickest way to breed out the rose comb. But one of the best crosses for improving White Rocks is to put a White Rock cock on to big roomy Black Rock hens. Choose hens with as much yellow shade in the legs as it is possible to get, and the Whites produced as a result of this mating will be singularly pure and clear in colour, *and will breed true when crossed with other Whites*.

“This cross will often throw some beautifully clear blue Barred birds, and also Black cocks with yellow legs, and is the cross which will eventually, I believe, prove to be the origination of Blacks as a separate variety.

“Next to Wyandottes, the breed most nearly assimilating to Rocks in type is the Orpington, and the reason for this is palpable enough, when it is remembered, what a large proportion of Orpingtons show the distinct impress of Rock blood, in their decided barrings of blue or purple across the green sheen. In shape of body, and set-on of tail, the Rock and the Orpington are very much akin, but the latter is much larger in tail, and more flowing in that appendage, and a good deal shorter in leg. These in out-crossing, however, could soon be altered to the correct Rock type, but the great objection, to using Orpingtons as an out-cross, is the dark colour of their legs; only for this they would be very useful, but it would take many generations to entirely breed out the dark shade in legs. Both Cochin and Brahma crosses have been used with fairly good results, the leg-feather being much easier to breed out than most people imagine.

“Cochins have had a principal hand in the origin of most Buff strains, and also in that of a few Whites. But, even when Wyandottes were in their chrysalis stage, the signs of strong Brahma crossing in many American strains of Barred Rocks were strongly pronounced, and, though not exactly a common ancestor, I am strongly of opinion that our American cousins owe the greater part of that beautiful rotundity of symmetry so akin in their two leading breeds—the Rock and the Wyandotte—to the blood of the Brahma fowl.

“Having reared the progeny of your first year's out-cross, select the most typical pullets and put to a cock as similar as possible (but not closely related) to the one you started with, and put the best coloured cockerel bred from the out-cross on to hens of good type and clear colour of the variety you are breeding for. From the second year's chickens take the pick of the best grown pullets from both breeding pens and put them back to the original cock, if he is still alive; failing this, on to as typical a cock as you can

obtain of the same strain to impress type, as (having introduced so much fresh blood) you can generally breed back so far with safety, but go no further towards in-breeding; and, never mind how tempted, if breeding Rocks, even though new blood may have been quite lately introduced, never put brothers and sisters together to breed from.

"Dorking blood has been tried as a top cross in a few instances, but owing to the very great difference in shape of the two breeds, and the difficulty experienced in "breeding out" the white leg of the Dorking, this out-cross cannot be recommended.

"Taking recent importations, and the visits of good Judges to the Home Shows, and their reports as a guide, it is certain that Rocks of late years have sadly deteriorated in England, and as a breed are not in it with the birds bred in that country some ten years back, and are also far behind most American strains in all-round excellence. This falling-off can be traced, without any shadow of doubt, to experimenting with an out-cross in an altogether wrong direction—viz., the admixture of Mediterranean blood. Times almost without number, it has been found, that the Mediterranean breeds, will not nick with Rocks, and leave results, that can in any way be deemed satisfactory, from a Rock breeder's point of view. This cross is evidently too decided, both sides possessing little in common in their economy, and the retrogrades bred from it are so incompetent to produce anything approaching true Rock type, even after several generations of the most careful breeding, that birds, showing the slightest traces of Mediterranean blood, should be strictly ostracised, as it is useless and hopeless to attempt to breed good Rocks from such specimens.

"English breeders were some few years ago, almost crazy on the subject of heavy dark markings on the Barred variety, and to produce these darker, took the extreme risk of introducing Minorca blood, and for Whites used the Leghorn cross; the results have been birds with a lot of *permanent white in ear-lobes, high, big, squirrel tails, sloping backs and breasts, beefsteak combs, and narrow bodies*, and, in fact, anything and everything altogether contrary to what constitutes a good Rock.

"Having given my experience and ideas on out-crossing, in finishing the subject, I would warn breeders to keep their hens and pullets safe from the danger of even an accidental or temporary crossing with any male of an undesirable breed, for the reason that I believe the *Saturation theory* is just as applicable to Fowls as it is a proven fact with regard to dogs and cattle. Once allow a foreign cock to get among the pullets you intend to breed from, say only for a day, and in all probability you will find when these pullets are mated up for the season (though, perhaps, weeks or months have elapsed) that their chickens, or a large proportion of them, will show unmistakable proofs that the one accidental top-cross of foreign blood has left its sure impression. This is one of the strongest arguments in favour of the principle of '*One man one breed*;' but my main contention, in support of it, is, that unless a man's business is Poultry keeping alone, no man (in this country of keen competition in all trades and professions) can possibly afford the time to study more than one breed at a time as it should be studied, by which I mean that the knowledge he wins should be ground into him by years of close observation and practical experience in the breeding pen, and if he attempts to give the time necessary to study and develop properly several breeds, and attend to his business too, at the same time, well, the Poultry or the business, one or the other, will sooner or later 'go bung,' sure.

"Some authorities tender all sorts of advice on mating for colour in the Barred variety, even going so far as to recommend a 'special blend' for producing the correct coloured cockerels, and another blend for pullet-breeding; but, with all due respect, I must state that such are decidedly mistaken notions, and if a beginner starts breeding Barred Rocks on these double-barrelled lines—one pen for cockerels and another for pullets, he will soon find himself hopelessly bushed. I am not ashamed nor afraid to admit that I have been 'through the mill' myself, and that my knowledge of right and wrong in this matter had to be bought by pretty bitter experience. Before I owned a bird I very early got a good idea of true Rock type, and right at the start was fortunate in securing big birds of splendid type; and, as I always had a horror of anything showing signs of Mediterranean blood, and kept off such entirely from the first, I consequently had not much difficulty with type. But my early efforts were very disappointing as regards colour.

According to the advocates of this double-barrelled or two-pen system of breeding, the first pen of Barred Rocks I started with were an ideal pen for pullet-breeding, but what was the result? Simply not a single chicken fit for the Show pen—the *pullets all too dark, the cockerels all too light*—and this in face of the fact that two out of the three hens which the pen contained *proved afterwards to be two of the best Show and breeding hens in Australia*, viz., “Champion Empress” and “Cuckoo.” These two hens were pretty high perfect in colour, and when afterwards mated (with the addition of “Champion Pet” to the pen), to a cock as decided and clear in markings as could be procured, the result was a marvellous one; and from that one pen of birds, for that year alone, I sold close on £200 worth of progeny, the chickens including a champion and prize-winners of both sexes at the big shows. No doubt the double-barrelled theory has arisen from the fact that the natural tendency of Barred Rocks is to throw light cockerels and dark pullets, this being the reversion to the light barred Dominique male and black female of the parent stock; but experience proves that this tendency is only decided when the breeding pen is constituted of two different shades—the cock too dark, or a light blue cock and dark hens. These mixed shades may blend in some few instances in a very small percentage of the chickens, but it will be a *very small* percentage, and the bulk of those bred in this way will consist of bad coloured birds. “The real Mackay” in breeding for colour is to put the best coloured birds you can possibly obtain of each sex together, whether breeding Barred, Whites, or Buffs. In Barred let your whole pen be ‘true blue’ in colour, and as near the *one shade* as possible throughout, and as ‘like begets like’ far surer in these matters than any unlikes are likely to blend, you will find this system knock the double-barrelled system ‘kite high,’ and that by following it you can produce from the one pen both cockerels and pullets of the correct shade, and a far larger percentage than by trying any mixed methods. If possible, only use cocks with good clear, decidedly barred hackles, free from laced feathers. Hackle-marking is one of the weakest points in Barred Rocks in this portion of the Empire, and more attention must be paid to it. Given a cock particularly good in hackle, and his chickens can nearly always be depended on to be clear in barring throughout, and very free from smudge or mossiness. For the rest, as regards breeding for colour and markings, keep in mind the hints given in the previous portions of this chapter, and you should be on the right track to make a fair start; but if you do get off the mark well, and even with a bound, don’t let early success spoil you by creating over-confidence and carelessness. Always remember that to win and merit continued success in this breed, close and continued study and perseverance are absolutely necessary. In selecting the male bird for the breeding pen do not take a *small* one, but a typical, compact, medium-sized bird is preferable to a large one, should the latter be deficient in type or a trifle weak in his legs. Of course, if a good all-round big bird is available, all the better, but anything above Standard size is not imperative in the cock. Impress of colour and markings are chiefly required from him, as size can in all instances be secured in the progeny by the selection of large-framed, sound constitutioned hens.

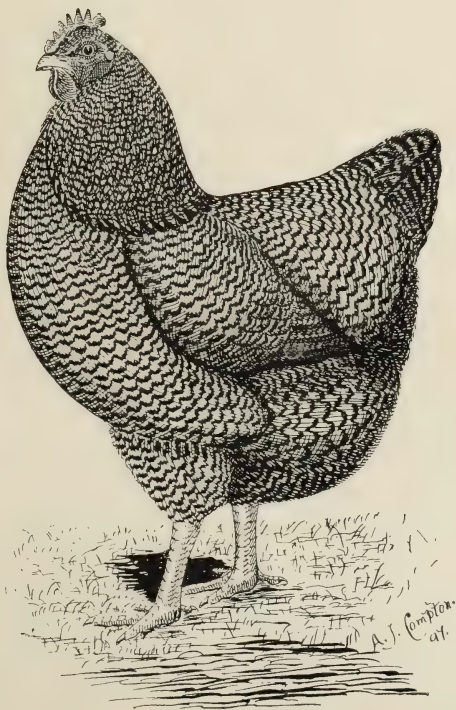
“For preference, use a well-developed cockerel on second season hens for a start; or, failing this, a two-year-old cock on full-grown pullets, but do not breed from youngsters on either side before they are fully developed. If you do, a lot of your early chicks will, probably, suffer from deformities and troubles similar to those following an overdose of in-breeding, and if you want vigour and growth in your chickens right from the shell never over-work the Lord of the Harem. Limit his mates to three, or at the most four, and you give the male bird a chance to print his impress on strong and healthy progeny. From a pen so constituted 150 to 200 chickens can be bred and reared in a season, through the extra fertility of the eggs and strength of the chicks, fully as many as most breeders get from a pen of ten or a dozen hens. Some cocks stamp their good points, some their bad ones on their progeny most distinctly. With all the male birds you use study these results closely, and the following year select the heads of your breeding pens accordingly.

“In excusing myself for one little incursion into the rearing and feeding department, and for giving a hint, which, in all probability, has been already embodied earlier in this work in the Chapter dealing with chicken-hood. I do so, solely, owing to my keen desire to omit nothing, that I believe essential, from a Rock breeder’s point of view, as I consider it is of so much value that it cannot be repeated too oft, and that is *bone meal for bone*. If you want big bone, and strong, in the first place breed for it by constituting your pen aright. This

must be your starting point : but if you want the surest backing in the world, to achieve your object, feed your chicks with a regular supply of bone meal from the time they are 10 (ten) days old. Let the meal be coarse and clean, with no sign of offal or dirt, rather coarser than oatmeal is the right grade : but on no account use bone dust. This latter is frequently half offal, or decomposed matter, which in the form of dust cannot be detected, and will do a deal more harm than good, by causing continual scouring. For this reason rather use meal too coarse than too fine. Feed the bone meal every alternate day, in the proportion of a single handful to an ordinary dipper measure of pollard or other soft food, mixing the lot thoroughly while dry, so that the bone may be evenly distributed throughout the pollard, adding the hot water afterwards. Since by continually experimenting I found the right quality and quantity of bone meal necessary, both others and myself have received great assistance from this source, not only by developing big and strong bone in the chickens, but by helping to keep the adult birds in good and regular health.

“When judging Rocks, and having close competition, always make it a rule to handle all birds that have a chance of scoring. In common with all table Fowls good handling qualities should count for much in Rock classes, besides getting a bird right in the hand often reveals many deficiencies which the eye cannot possibly detect, such as, off-coloured feathers adroitly hidden, extensive plucking of same, faked tails, white flights, broken breast-bones, and any artificial improvements. Poultry Judges should not take for granted everything they can see as natural, as a matter of course, or be ready to take too much on trust, but should go about their work seriously, and with a due sense of the responsibility of their office, remembering that on their *judgment* hinges the fate, of perhaps a whole year's patient effort, of many a conscientious breeder, and that, if they rush hastily and carelessly through their classes, they may cause exhibitors who are honestly striving towards improvement to turn the whole thing up in disgust, while they encourage those who may own only medium quality birds, *but are clever Showmen*, to remain in the rut of mediocrity. Judge so that before leaving a class you know every main point, good or bad, of every bird that has a chance in the running, and be thoroughly decided in your own mind of the why and wherefore of your decisions, and the position assigned to every exhibit. Never accept an appointment unless certain of being able to give to your classes the full attention they deserve, and never on any account let anyone hustle you, when judging, into any attempt at record-breaking. There are record-breakers enough and to spare in nearly all callings, but they are not required as Poultry Judges, as all who attempt such a style generally distribute the prize cards on the lottery system. Follow a systematic course, and, if your memory is not of a retentive nature, keep a note-book and jot down the reasons for your decisions. Remember that you are placed in your position not only as an adjudicator, but also as an educator, to show breeders where they are going wrong, and also to teach *beginners* what an ideal bird of the breed should be, and where the deficiencies lie in their specimens. Following this line, and believing that the first principle and main object of Shows is to educate the public, I have for years endeavoured to let all and sundry see the reasons for my decisions, by jotting down on the number card of each pen the main points in which each bird excels or is deficient, so that ‘he who runs may read,’ and thereby learn and understand. In this matter I have, with but one single exception, always received the hearty co-operation and assistance of every Society and Club for which I have had the honour to act, the Committees welcoming the idea as the furthering and carrying out of one of the purposes for which Shows exist. The single exception to which I allude, where a Committee objected to the reasons for my decisions being publicly given, is perhaps hardly to be wondered at, as it was in connection with that Club, which for years has been noted for its conservative and effete notions with regard to the Poultry section, and which, rather than encourage Poultry breeders, has elected to ‘go to the dogs’ for consolation and support.

“To Critics, Pressmen, and fellow Judges, I take this opportunity of tendering a small bit of advice on a matter that has often struck me very forcibly as most incongruous when reading or hearing criticisms on Judges' decisions, when those very criticisms have been made, perhaps, two or three days subsequent to the Judging day. Most critics seem to forget that all birds are not constituted alike, and that a bird which, when judged, was as fresh as paint and in perfect condition may not stand the confinement of the Show pen well,



Barred Plymouth Rock Hen, "Champion Tremlett."

The property of Messrs. Franklin Bros., Sebastapol, Ballarat, Victoria. Bred by Mrs. Tremlett, Marrickville, N.S.W.
This hen was supreme Champion in 92, 93 and 94, and fairly earned the title of the **Best Barred Rock hen in Australia.**

or be of an excitable, nervous, fretful temperament, and consequently, a day or two after, be very much 'off colour.' On the other hand, many young birds are pen-shy, and suffer from Show-fright on Judging day, but often before the close of the Show become as tractable as old stagers. For these reasons I would ask all Critics to make it a rule to make their reports, if at all possible, on Judging day. If they find this impossible, in fairness to the Judge, their readers, and themselves, they should openly state the interval of time that has elapsed between the Judging, and the taking of their notes. If this is neglected, their criticisms must, of necessity, be in many instances heavily handicapped and almost valueless. Critics should also bear in mind the fact that the Judge, in handling birds, may find many faults, and also some few perfections, which to the eye alone are impossible of detection, and this applies especially to all Table breeds, and to Rocks in particular. Here Judges have a great advantage over Critics, and which some of the latter do not give enough weight to. If a Judge's reasons for his decisions were set down on a card attached to each pen, and this practice became general, it would be of great assistance to all critics, and make their work considerably lighter and more agreeable, as no man likes to pick holes in another man's work, especially when he finds himself working to a certain extent in the dark.

"Before finishing this contribution, I would like to chronicle within its pages a recognition of the services rendered to the breed by those Fanciers who have, within my own knowledge, worked hardest (some by a liberal expenditure of hard cash, others by years of patient study), to establish and improve the Plymouth Rock in Australia, and also a few notes on the best birds with which they have won distinction. That genal son of France, the late Mr. De Moor, in 1886 brought the first consignment of Rocks to this Colony (Vic.), but as they were described by Mr. A. H. Hopton, in the *Leader* of 14th August of that year, as 'somewhat resembling Malays in shape,' they were evidently far from being true Rocks in type; and though Mr. De Moor imported at the same time some very high-class birds of other breeds, which he had previous experience of, and which have left a distinct influence for good on our pure-bred Poultry since, it is quite clear that, through that gentleman's inexperience of the new breed, our first introduction to the Plymouth Rock was not exactly what it should have been.

"To the late Mr. E. Poore we owe the first introduction of American blood. Mr. Poore was a quiet, unassuming gentleman, saying little and thinking much, and a close student of Nature, consequently his opinions carried great weight, and were invariably respected. This gentleman had resided for many years in the United States, and in selecting the Plymouth Rock as an ideal Utility Fowl suitable to Australia he did the farmers of the Colonies an incalculable benefit. His mature judgment guided him aright in foreseeing that this great big, grand *General Utility* Fowl must catch on here, if introduced in right kind, and I well remember the sensation caused when he first exhibited his enormous birds at the Melbourne Show. Word got round Town of the new American Fowls as big as the Turkeys of those days, and his pens were besieged by a gaping crowd during the remainder of the time the Show was open. That Mr. Poore did introduce the 'Simon Pures,' and that those same birds, taken as a whole, were second to no later importation of Rocks ever brought to Australia, results have abundantly proved since. Only in odd specimens have we seen anything to equal them in size and type; and, though the cocks were a trifle light in colour, the hens were well-nigh perfect. Pretty well every Champion hen or pullet bred in this Colony (Vic.), may be traced back to the Poore strain, and from its top crossing of 'Czar' blood we owe the best cocks and cockerels yet seen in Australia. Mr. Poore was undoubtedly the pioneer of the breed in Victoria.

"Mr. John D. Goodwin, Mr. E. L. Samuel, Mr. Walter Hope, and Mr. James E. Pemell were among the earliest to bring Rocks prominently under public notice in N.S.W. Mr. Goodwin's birds met with great success in the early years, winning three out of the four first prizes at Sydney Show in 1889, Mr. Samuel taking the other. Mr. Goodwin's Champion cock 'Surrey' was a bird of great type, and this bird swept the board for several seasons in N.S.W., and he then passed into Mr. Pemell's hands, from whom I bought him in 1892. This bird had an extraordinary constitution, and was hearty and vigorous right into extreme old age. Mr. Samuel made Plymouth Rocks a specialty, and imported very largely, having brought out nine or ten different strains at various times. He seemed to set great value on the

Ainsworth birds, and won twelve first prizes at Sydney Shows the first five years of the breed. Mr. Hope was very successful with Rocks, and showed a tip-top team at the Melbourne Show in 1889. This team has seldom been surpassed by any exhibitor since. The 'Hope Hen,' as she was called in Victoria, had a grand Show career, and was one of the best coloured *big* hens we have seen, being a real 'true blue,' and very decided in the barrings. She was bred by Mr. Maxfield from Hope eggs, and afterwards passed into the possession of Messrs. Franklin Bros., who gained many successes with her, the only hens that were ever placed before her being, I believe, the celebrated 'Champion Tremlett' and 'Champion Pet.' At the '92 Melbourne Show it took Mr. Penell, who was Judging, a very long time to separate the 'Hope Hen' and 'Champion Tremlett,' and the former was in such beautiful bloom that on that occasion no injustice would have been done had she been placed in front of the *Great Champion*. At the end of the eighties and early in the nineties Mr. Pemell won a great many cards with Rocks on the N.S.W. side, but his strain was inclined to be a bit too dark in colour.

"Following close on Mr. Poore's heels in Victoria, Mr. Fred. Thonemann started importing and breeding Rocks on a large scale, and amongst others had sent out to him the Palace winner (Eng.) of '86. This cock was the sire of Champion 'The Czar,' which Mr. Thonemann bred from the second prize Palace hen of the same year. In '88 the 'Czar' was Champion as a cockerel, and in '89 won the same distinction as a cock. He was a beautifully-coloured bird, especially blue on the back and saddle (where so many otherwise good-coloured birds fail); in fact, he was about the best I can remember in that particular, and, as is very uncommon, retained his wonderful top-colour right into old age. Though good in shape of body, he was a trifle too close in hocks, and all his cockerels were so distinctly faulty in this respect (the majority worse than their sire) that breeders were at one time inclined to consider him a failure as a sire, even though he stamped his own grand colour into nearly every chicken; but when his sons and grandsons were mated to big wide-hocked, Yankee blood hens of the Poore strain, the progeny, with but an occasional exception, came wide and strong in legs, while at the same time inheriting to a marked degree the wonderful good even colour of their ancestor, the old 'Czar.' Mr. Thonemann imported from four different English breeders, viz., Messrs. T. Lambert, C. Jarret, C. Perry and R. Stacey, but only continued breeding for a few years. He bred several good Show birds, but without a doubt 'The Czar' was a long way the best bird he ever owned, and nearly all the best-coloured birds, of both sexes, of the past two or three years in Victoria can trace back to 'The Czar' either on one side or the other of their parentage, and every Champion cock or cockerel since my sale in 1891 (with the exception of 'Skipper Hall,' which I bred from Yankee blood on both sides), are direct descendants of his grandson 'Champion Toff,' the best sire of cockerels yet proved in Australia. Thus it will be seen what a phenomenal success, especially in the male line, the 'Czar' blood has after all turned out to be, though promising at the first (through the hereditary taint of weak hocks) to be a comparative failure; but too much credit cannot be given to the grand type of those hens of the Poore strain, which nicked so well, and worked such a transformation with 'Czar' stock, by adding robustness and good bone to the progeny.

"This happy blending of 'Czar' blood males with Poore strain females was one of the earliest of my successful experiments in Rock breeding, and produced a wonderful lot of chickens in 1890, which swept the board in 1891, and which, I sold for close on to £200 for under 30 birds, including with the three old hens, 18 sold under the hammer at an average of £7 per bird, the highest average yet obtained at a Poultry auction in Australia; and among the above 30 birds were the young sires from which Messrs. Franklin Bros. and Mr. Maxfield have since bred such high-class birds.

"The year 1889 saw another importation of American blood, Mr. J. C. Anderson being the consignee, the females of this lot being very similar to those of Mr. Poore's in their shade of colour, but not so extraordinary in their size. Mr. Anderson sold out to Mr. Herbert Greaves, and he to Mr. Whicker. One of the hens, 'Columbia,' won first at the Exhibition Show, 1890. She was remarkable for the clearness and distinctness of her barring all over. I bought her from Mr. Whicker in August, '91, to mate with 'Young Toff,' and she afterwards passed into Mr. Maxfield's possession when he bought the balance of my barred birds.

"About the same time as Mr. Thonemann's start saw the establishment of Messrs. Lucas and Co.'s stud at Lilydale. The firm consisted of Mr. E. H. Bardwell, Mr. W. Lucas, and, later, Mr. J. W. Siddall. For some years they imported very largely, and must have spent a lot of capital towards improving the breed, as they brought out some splendid birds, among others the only cock of English breeding that I considered a better Show bird than 'The Czar.' This bird was not such a grand-coloured one as the latter, being a shade too dark, but very evenly marked, and of grand bone, constitution, size, and type, with magnificent-shaped strong legs of the brightest orange colour, and being so good in those points in which most English birds were deficient made him especially valuable. He was rather unfortunate at Shows in this country—a partial loss of sight, which sometimes affected him, accounting for his defeat on one or two occasions where otherwise he would have won easily. The same firm were the importers and owners of the Champion hen of '88 and '89, bred by Stacey (Eng.), a big, massive hen, rather on the dark side, but a hard one to beat. They also offered Mr. Stacey 20 guineas for the Dairy winning cockerel in his yard before going to the Show. I fancy this was in 1890. Had he not won at the Dairy Show the firm would have got the bird; and this win turned out to be a rare loss to Australia, as this bird proved to be the Champion of Great Britain, and for over two seasons had an unbeaten record at the principal Shows of the Old Country. When Messrs. Lucas and Co. retired, Rocks lost a good supporter in the Show pen, as the firm's location was admirably suited to the requirements of the breed, and their birds were always shown in capital Show condition.

"In '89 or '90 Mr. J. L. Anderson, of Geelong imported a consignment, bred, I believe, by that veteran Fancier, the late Mr. Henry Beldon, the hens of which, taken as a whole, were the best for colour we have yet got from English breeders, being similar to American stock—viz., blue in the dark barring, instead of nearly black, like the generality of English blood. The cock was also a fine Show bird, not quite equal in colour to the hens, but left some very good coloured stock. About the best of his get was 'Beldon Boy,' which, under Mr. Huggins, at Essendon Show, in 1891, as a cockerel, won second to Champion 'Bolivar,' in a class of 25 cocks and cockerels. Mr. W. G. Whicker, of Diamond Creek (Vic.) bred this young bird, having secured the original importation from Mr. Anderson.

"The Essendon (Vic.) Show of 1891 will long be remembered by Fanciers as the finest exhibition of Barred Rocks yet penned in Australia. Old and young had to compete against each other, there being only two classes. The first seven cockerels were a wonderful lot, and, for the number, have not been approached at any Show since. They beat several noted imported cocks, and though I had the great pleasure of breeding six out of the seven, I think Fanciers who saw them will acquit me of being egotistical in the matter if I particularise them here, as a man might go on trying for fifty years and never again expect to breed such a half-dozen chickens in one season. At the top of the class, and champion for the best Rock in the Show (thus beating his dam, 'Champion Pet') came 'Champion Bolivar.' He was a wonderfully early matured bird, then only eight months old, of great size, and a 'true blue' in colour. He won nine guineas' worth of trophies right out at this Show, and the same year won first cockerel class, V.P. and D. Exhibition Show, and first cockerel class at the Royal. Mr. W. G. Whicker's 'Beldon Boy,' referred to previously, was second, a beautifully barred blue bird, but not up to the others in size or bone. Mr. Geo. H. Pilley, of Kanumbra Station, bought this youngster, and mating him with big-boned pullets, carrying a lot of Poore blood, produced some very good cockerels the following season. 'The Rake' was third, a bird of magnificent type (this could hardly be otherwise, considering his dam was old 'Champion Empress'). He had a back like a Clydesdale, and was pretty well as wide as he was long. Messrs. Franklin Bros. bought him from me at this Show, and afterwards won third to Champion 'Skipper Hall' and Champion 'Bolivar' with him at Geelong. In their stud he proved a great success, being the progenitor of the Champion cockerels of 1893 and 1894, and Mr. Maxfield's present Champion 'Wonder.' 'The Masher' was v.h.c. or fourth. His dam was 'Eve,' a pullet I bred from the Poore strain on both sides. This cockerel was very large, and had an immensely wide and deep breast, but inclined to carry his tail too high. Mr. Maxfield bought him during the Show. 'The Dude' was h.c. or fifth. His dam was also from the Poore strain. He was a big, but late maturing youngster, rather on the dark side. At my sale the

following month Mr. S. P. England gave 17 guineas for him, and at Essendon in 1892, in a class of 32 cocks and cockerels, won third with a cockerel by him, 'The Dude' himself being again fifth. 'The Larrikin' was commended or sixth, still another of Poore blood on the dam side, a nearly perfect bird, both in shape and colour, but for the fact of being handicapped by a slight brassy patch at the point of each shoulder. Mr. Joseph Lodge, of Bacchus Marsh, purchased him at this Show, and won first with him at Ballarat, beating 'Bolivar.' Mr. Lodge had a very fine cockerel from him in 'The Nugget,' which he sold to Mr. Maxfield, and from the latter Mr. Maxfield bred the sensational cockerel of '95, 'Champion Sensation,' which Messrs. Franklin Bros. claimed at Essendon, his first Show, at ten guineas, and re-sold back to Mr. Maxfield, two days afterwards, for 25 guineas. The biggest youngster of the lot, Champion 'Skipper Hall,' did not get a card, but he was, I believe, the reserve number or seventh on the list. At the time he was overgrown, and undeveloped; but Mr. Huggins's reason for placing him so far back was that his comb was altogether too big, and that gentleman was always consistently severe on big combs. He was of magnificent colour and markings, however, and developed to an enormous size, and proved to be the champion of 1892. I sold him during the Show to Mr. W. T. Wright, and a week or two afterwards Messrs. Franklin Bros. bought him from that gentleman, along with those two great hens, 'Champion Tremlett' and 'The Hope Hen.' The price of that deal has never transpired; but if it was anything under 50 guineas the Messrs. Franklin must have secured a great bargain, and I have often thought, that in parting with these three birds, Mr. Wright missed the opportunity of becoming one of our foremost Rock breeders, for with them Messrs. Franklin Bros. commenced winning their long string of Championships, in which they monopolised the years '92, '93, and '94, and also secured a share of those in '95 and '96. The first five of my birds enumerated above were all by 'Champion Toff,' the unbeaten Champion of 1893, a magnificently marked bird, and a grandson of old 'Champion Czar.' 'The Toff' had only one season at the stud when I lost him through an accident; but in that season he proved himself a highly successful sire, as, with the exception of 'Skipper Hall' (who was American blood on both sides), every Champion cockerel since is descended from him, these results strongly emphasising the successful nick of mating 'Czar' blood males, with females of the Poore strain. At that same Show (Essendon, '91), in a class of 21, I won first, Champion, and five guineas in trophies right out with old 'Champion Pet.' Mr. Maxfield was second with 'The Hope Hen' (sold during the Show to Mr. Wright), and with 'Cuckoo' and 'Champion Empress' I secured the third and fourth cards. These two hens Mr. Chas. Lynott purchased at my sale the following month, on behalf of Mr. Harold Cadell, N.S.W., and with both that gentleman scored several good wins in N.S.W. 'Empress' is illustrated in this work. 'Cuckoo' was of the same beautiful blue colour, but hardly so massive in size and bone. Both were bred from Mr. Poore's American importations.

"Noting that White Rocks were palpably open to improvement, the month following the above Show I sold off my Show birds by auction, and settled down to manufacturing an original strain of Whites. At that sale Mr. Whicker secured the Champions 'Bolivar' and 'Pet,' and scored many wins with both, winning with 'Bolivar,' first, cockerel class (26 entries), Exhibition Show, '91; first Royal, '91; second to 'Skipper Hall,' Geelong, '91; and second to 'Larrikin,' Ballarat, '91; second, Essendon (32 entries), '92. After this he went light in tail, and was beaten several times by 'Skipper Hall,' the Champion of that year. With 'Pet' Mr. Whicker won first, hen class, Exhibition Show, 1891, and Champion for best Rock in the Show (75 competing); first, Royal, '91; first, Ballarat, '91; second to 'Champion Tremlett,' Geelong, '91; and second to Mr. Lodge's big hen, Essendon, '92 (20 entries). Mr. Whicker has kept a few Rocks ever since, but after winning the 10-guinea trophy for highest number of points scored in Rocks in '91, he has rested on his laurels, giving other breeds more attention. However, he now and again comes out with a good one, and this year ('97), at the Royal, won in the pullet class with a very young one, a real Poore in colour and type, and certainly the best pullet of the year. Mr. H. W. Huggins, of Perth, W.A., was a breeder of Rocks in their early years in Victoria. His birds were mostly of American blood, and were noted for their size and type. He is one of the best judges of a Rock in Australia, a keen student of the breed, and always very careful and correct in his decisions.



White Plymouth Rock Cock, "Freddy Ball."

(THE CHAMPION WHITE ROCK OF AUSTRALIA.)

Bred by Mr. H. Huntington Peck, "Hiawatha," Pascoe Vale, Victoria.

Winner of the Plymouth Rock, Langshan, Wyandotte, and Orpington Club's Champion Competition on six occasions at Sydney, Melbourne and Essendon Shows.

"Mrs. W. F. Weeks, of Rockville, Wentworth Falls, N.S.W., for very many years has been a very large importer, breeder, and exhibitor of Barred Rocks. This lady has been very enterprising, and has sent birds to nearly every Show in N.S.W., and to several in Queensland and Victoria, and in many cases has scored very successfully.

"Mr. A. Muggridge, of Neutral Bay, N.S.W., some five years ago imported a real good trio, selected, I believe, by that all-round judge, Mr. Enoch Hutton. Mr. Muggridge has been breeding on a limited scale since, and generally exhibits a few good birds at the Sydney Shows. In '95 he won first in cocks, second in hens, and fourth and sixth in cockerels.

"Mrs. W. H. Webb, of Bathurst, together with her many other breeds, has for some years been able to muster a few good Rocks, and has been successful at Provincial Shows, and occasionally in the metropolis.

"Another lady, Mrs. Tremlett, of Marrickville, N.S.W. (lady Fanciers in N.S.W. have strongly favoured Rocks), is a very staunch supporter of the breed, and if only as the breeder of that great hen, 'Champion Tremlett,' the best barred hen yet seen in Australia, deserves to be famous; but Mrs. Tremlett has always been noted as a breeder of good pullets, and in this respect is far ahead of the majority of Rock breeders on this side of the Murray.

"Mr. John W. Pender, 'Drumfin,' Oakhampton, West Maitland, is certainly entitled to the pride of place amongst the breeders of N.S.W., as the most consistent supporter and successful exhibitor of Rocks in that colony during the last decade. Many of the cockerels bred by him have been of exceptional merit, and two which he exhibited at the Sydney Show of 1895 I was particularly struck with. No. 283, which was second to Mr. Maxfield's 'Champion Sensation,' was a splendidly barred bird right throughout, from crown to tail tip, with an exceptionally good hackle, and of excellent type, but was rather on the small side as a cockerel. Mr. Maxfield purchased him the same season. He filled out a lot the next year, and could always beat 'Sensation' as a cock, and is, in my estimation, the second best male Barred Rock in Victoria at the present moment. No. 282 was even a better bird, hardly so good in hackle as 283, but a marvellously big bird, of grand type, and splendid wide legs; but when judged, one of his tail sickles was missing, and, judging under the Club's Standard, I reluctantly had to pass him. This was very hard luck for Mr. Pender, as, failing this accidental deficiency, this bird must have beaten 'Sensation,' who was the Champion of both Victoria and N.S.W. for that year, Mr. Pender's bird being so much better in hocks, and from the good colour of the sickle feather he carried, I felt sure that the missing one had been lost by an accident. The rule of passing a bird for being deficient of a sickle or sickles was very hard in a case like this, and Messrs. Franklin Bros.' Champion in '94 was passed at Brighton, Victoria, for a similar reason; but, as *bulled* tails were so common a few years ago, the rule was an actual necessity.

"The fame of Messrs. Franklin Bros., of Sebastopol, Ballarat, has been high in the Rock world for now close on ten years, and deservedly so, too. Those gentlemen understand the art of showing a Rock as it should be exhibited—perhaps better than any other exhibitor in this country. Their birds are always shown in the pink of condition, and if a bird is a bit off they prefer keeping it at home, never mind how good a specimen, rather than risk a chance defeat by others of, perhaps, indifferent quality. In this they show their wisdom, and teach a well-needed lesson to many exhibitors who often persist in showing their best birds when quite out of form, thus openly courting defeat. This latter class of breeders are quite forgetful of one of the first principles of the reasons for holding Shows—viz., that the public may be taught to compare the wide difference that exists between pure-bred stock and common Poultry, and if the former are not exhibited in Show condition, the untrained eye will note but little difference, and be apt to discount the benefits obtainable from keeping good stock in preference to bad; and in penning their birds in such grand condition the Messrs. Franklin Bros. have fully earned the best thanks of all lovers of the breed, as it is the sight of such Rocks, as they exhibit, in ideal condition that catches the eye of novices, and induces them to take up the breed in preference to others. Anyone who has seen a Franklin team once or twice can nearly always pick out every one of their birds at following Shows, simply by their superb condition alone; but in

addition to being past-masters in the art of showing, the firm have bred some splendid specimens, some of our very best, and by practical results have proved that they thoroughly understand the successful mating and breeding of the Barred variety second to none. The best they have bred have been 'Champion Pet,' and their Champion '95 and '96 hen, the Champion cockerel of '93, and his son, the Champion of '94. 'Champion Pet,' most of whose wins I have already enumerated, Messrs. Franklin Bros. brought out as a pullet at Geelong, '90, where she was placed first, having to compete against hens, and beating Mr. Whicker's imported hen, the winner in the hen class at the Exhibition Show, Melbourne, the same month. At the latter Show 'Pet' was first in a class of 26 pullets, and I claimed her for my yard, at the catalogue price of £10, and she was dirt cheap, for within 12 months she repaid her purchase money five times over in prizes, sales of progeny, eggs, and her own re-sale. 'Pet' was of enormous size (like old 'Empress,' shaking 12 lbs. when in condition), very evenly and though rather closely barred, with a very small tail, and a sweet head, quite in keeping with her beautiful quality throughout. She was just a trifle on the dark side, but was perfectly free from the least suspicion of blotchiness in which 99 per cent. of dark hens fail. For a hen she was, perhaps, $\frac{1}{2}$ an inch too long in leg, but not enough to be denoted a leggy one. Taking her all round, I consider we have only seen two better Show hens—viz., the two Champions, 'Tremlett' and 'Empress,' both illustrated in this work. Added to her great Show qualities, 'Pet' was the equal of any Barred Rock I have yet heard of as an egg-producer, and within six months (the only time I kept a record) laid over 140 eggs. Messrs. Franklin Bros.' Champion '95-'96 hen was much of the marking and colour of their famous 'Champion Tremlett,' but not approaching her in size, or equal to her ideal type, but still a real top-sawyer, and certainly one of the best dozen Show hens of the Colonies. Among other prizes, she won—First, Essendon, '95, hen class; first, Exhibition, '95; first, Exhibition, '96; and Champion at the two former Shows. Their Champion cockerel of '93 was (through 'The Rake') his sire descended from 'Champion Toff' and 'Champion Empress,' and his son was the crack cockerel of '94, beating his sire for the Championship of that year. Both these birds were of capital type, big, massive, well-rounded off bodies, splendid bone, and beautiful colour and even markings. Both were a little coarse in comb and head, but the '94 bird excelled his sire in quality and evenness of tail-barring, and as a Show cockerel we have only seen one better, and that his own son, Mr. Maxfield's 'Champion Wonder.' That celebrated hen, 'Champion Tremlett,' the Messrs. Franklin Bros. purchased from Mr. W. T. Wright in '91. At the Sydney Show that year she won first in the hen class for her breeder, Mrs. Tremlett, of Marrickville, N.S.W., and Mr. J. Maude claimed her for Mr. Wright at, I think, five guineas, reporting her as the greatest bargain in Rocks he had seen here. How Mr. Maude's judgment has been borne out may be seen from her record. As for the Messrs. Franklin Bros., she simply swept the decks right through the years '92, '93, and '94 of all the firsts and Championships of the best Shows, and still holds the belt as the best Barred Rock hen yet seen in Australia. Her type, shape right through, size, bone, and set-on of legs were simply perfection. Her dark markings were a little heavy just behind the saddle, but in all else she was an ideal specimen. With 'Champion Empress' she has been selected to illustrate the breed. The latter was her equal in type, and perfect in shade of true blue colour and clearness of barring, but though a 12-pounder, not in it with the Tremlett hen for size.

"Mr. Edward Maxfield, of Upper Flynn's Creek, Gippsland, at present holds premier position among the Rock breeders of Australia, both as regards the number and quality of his stock. He won both first and second prizes in each of the four classes of Barred Rocks at this year's Exhibition Show (Melbourne), which is a record for the breed. Mr. Maxfield commenced with Rocks in '90 or '91, and in July, '92, bought out all my Barred birds, being a breeding pen which I retained after my sale in '91, and a few bred from them, some 12 or 14 in all, the price being £101. From that time he gave up all other breeds, and devoted his attention solely to the one variety. Being always ambitious to get to the top of the tree, he has not allowed expense to stand in his way, and till he secured that position, bought pretty well every good bird at our principal Shows that the owners would part with, and having secured so many first-class specimens, and having unlimited room, he had a better opportunity of experimenting with various strains, and on a larger scale than, I may safely say, any other Rock breeder in

Australia. His number of breeding pens the last three or four years has been something tremendous, and for the past few years *he has reared some 500 chickens each season, all from high-class stock.* In the situation of his property Mr. Maxfield has a big advantage over any other of our leading breeders, situated as it is right in the heart of South Gippsland. Added to a gloriously cool summer climate, he has that great boon so helpful to the proper development of the breed, green grass all the year round, it being only a very exceptional summer in which the feed in that district becomes at all parched; and, as his country consists mostly of exceptionally steep hills (though having an ample rainfall), the runs are well drained and dry. Owing a large dairy, his birds, I am told, are reared from the shell on milk, this grand staple diet being used exclusively instead of water both in the drinking vessels and for mixing the soft food. Possessed of so many natural advantages, and having such a vast number to select good breeding pens from, it is not to be wondered at that he has bred some of the best Rocks that have seen the light in this or any other land. Breeding on such an extensive scale, Mr. Maxfield had to take up a General Utility Fowl, one in which the large surplus stock would find a ready sale on the open market, and in selecting Rocks could not, considering the adaptability of the breed to his district, possibly have improved on his choice. A couple of seasons back he sent his *cull cockerels* to the Old Country frozen, and obtained the top average price of the season against all breeds on the London market (Eng.). In the Show pen he had a hard nut to crack in the Messrs. Franklin Bros., who in his first two years had a long lead, but in '93 and '94 he ran them a good second, but in '95 and '96 got level with these famous breeders, and in '97 came out right on top of all. I will content myself with describing the two best birds he has bred. With 'Champion Perfection,' crack pullet of '95, he won at Sydney Show, first Pullet Class, Champion for best Rock female, and his first leg-in for the Champion Cup for best bird in the Club breeds. She also won first Pullet Class at the Exhibition, Melbourne, same year, and would have won the Champion Breeds Cup right out at that Show but for being a bit off in condition. During '96 and '97 she has won many firsts at the principal Shows. As a Show pullet, 'Perfection' is certainly the best we have seen in this Colony (it being remembered that the great 'Champion Tremlett' only came to Victoria in her second or third year). At ten months she was wonderfully developed—bigger than most big hens, her body the ideal Rock type, and her colour the 'true blue' throughout; her failing was want of bone, her legs being too fine and not wide enough apart for such an immense frame. As a hen I consider her only behind our two illustrations. And now for 'Champion Wonder.' As a cockerel, this bird was the most perfect specimen of a Rock of either sex—Barred or any other colour—that a person could hope to see, if one lived for another 100 years; in fact, he was an ideal bird, and, till he entered his second year, practically faultless, with a chest and front like an alderman, a back like a cart-horse, legs so strong and wide apart, and perfectly parallel from hock to heel, that they resembled two yellow box gate-posts. Tail small, conical, and correctly carried, head all quality, big and strong wings, but neatly folded and almost hidden by hackles, legs and beak of the brightest orange, plumage true blue right throughout, and evenly and regularly barred from the crown of his head to the tip of every tail-feather, and with a well-defined and decided hackle, he was a bird to marvel over, and one a lover of the breed could look at and admire all day. I had the extreme satisfaction of judging him at his first Show, viz., Essendon ('96), where he won first Cockerel Class and Champion. He gained the same awards at the Exhibition, '96, and in '97 won at Essendon, Williamstown, the Exhibition, the Royal, and several other Shows; in fact, he still holds an unbeaten record. Wanting a Barred cockerel of good type to top-cross on to my Goldens, I felt I could not go past this exceptional youngster, and so after the Exhibition Show '96, I leased him for the one season, but had to give Mr. Maxfield £20 for the use of him for six months only. From the type of the cockerels he has left me, I am convinced that he has a great future at the stud, and that he will rival his progenitor, 'Champion Toff,' as the crack sire of the nineties. Though still a great bird, as a cock he is not to be compared with his form as a cockerel. His type, shape, bone, and size are, of course, the same as ever; but he has gone off very much in hackle, and his tail is becoming light at the butts of the feathers. However, as a cockerel, we are

not likely to see his equal again, and I must heartily congratulate the artist on the marvellous fidelity to life exhibited in his delineation of this truly wonderful bird. Though naturally proud of 'Wonder' and his winnings, I think the feat of winning the Breeds Champion Cup with two birds of his own breeding gave the most satisfaction to Mr. Maxfield, as being some recognition of the position he had so long been striving for. This Cup was offered by the Plymouth Rock, Langshan, Wyandotte, and Orpington Club for the best birds in the Club breeds, to be won once at Sydney and once at Melbourne Shows, by the same exhibitor. Mr. R. Coleman won the first competition at Sydney with a Wyandotte cock, and Mr. L. L. Ramsay the next at Melbourne with an Orpington pullet: but in '96 Mr. Maxfield got his first leg-in with 'Champion Perfection' as a pullet at Sydney, and the following Melbourne Show won it right out with the cockerel 'Champion Sensation,' some 1,000 birds in all having competed for the Cup. This was a great triumph for the breed, as well as for Mr. Maxfield's yards.

"Mr. Alex. Anderson, of Lara (Vic.), has nearly always had a few good Rocks during the last ten years, and has had great success at provincial Shows, but very seldom exhibits in the Metropolis. He is one of our best Judges of the breed. Mr. J. B. Crawford, of Alphington (Vic.), has bred some very well-marked Barred birds the last two or three years, and has scored well where the Judges have considered markings of first importance.

"About the most enthusiastic Fancier of the breed in Victoria is Mr. J. W. Goy, of Hawthorn, and, though considerably handicapped by limited accommodation, he has now and again taken the very best down with birds of his own breeding. In '95 he had the best coloured cock of the year, beating both Messrs. Maxfield and Franklin Bros. with this bird, bred by himself. He has gone one better than those Fanciers in one way, in making several importations: and one of his imported hens is a real gem as regards colour and type, and, though rather deficient in size, has on several occasions got into the money at our leading Shows. Mr. Goy bred the Champion Rock of South Australia of the years '95 and '96, having sent him as a cockerel to Mr. S. Cope, of Mt. Barker, in that Colony. The latter breeder has been very strong in hens and pullets for some years, and Mr. Goy has now one or two really good hens of Mr. Cope's breeding. As Mr. Goy has been promised by a friend in the Old Country, the best cockerel and pullet, of the coming Show season at Home, that money can buy, we should thus soon have an excellent opportunity of comparing the best British Barred birds of the present day, with our own.

"In the White variety Mrs. Orames, of Kyneton (Vic.) always had to be reckoned with in the years when I was exhibiting the variety, and on two occasions birds bred by her beat cockerels of my own breeding. Mr. T. W. Tyzack has owned and bred some splendid Whites, and has scored two or three times in the Champion list. Both the above breeders were somewhat at a disadvantage in their earlier efforts from want of size and type, but quickly worked an improvement by crossing with blood of the 'Freddy Ball' strain. Mr. Geo. E. Brunning was the original importer of White Rocks to Australia, showing his American importations at the Exhibition Show of 1889. Mr. Brunning did not persevere with the breed, and the next to take up this variety was Mr. J. W. D. Robinson, of Pakenham, who imported several specimens from England. From his well-arranged farm, Minne-Ha-Ha, situated in a cool district, exactly suited to White Fowls, he exhibited birds in the very pink of condition, and it was their beautiful appearance that induced me to try and originate a new and distinct strain of Whites, which should possess *true Rock type*, and in which property Mr. Robinson's birds were deficient. I spent several years in experimenting, and commenced exhibiting the results in '93. The following year (1894) birds of my breeding won every first prize in the White Rock classes at Essendon, Melbourne, Sydney, and Adelaide Shows, and from the time I started to exhibit them till I sold off won every Championship offered. Having accomplished my mission of establishing a typical White strain, I sold the lot: out by auction, some 60 birds, in June, 1896. The bulk of the good birds went to N.S.W., Mr. Ambrose Hallen, of the first National Prize Poultry Farm, Parramatta, Mr. J. H. Stephenson, of Carlingford, and Mr. Harold Cadell being the principal buyers. Messrs. Tyzack and Bradshaw, buying together, secured some of the plums for this side, Mr. Tyzack retaining 'Champion Alick Dick' for himself, and the hens of this purchase going eventually to

Mr. G. E. Andrew. Mr. J. Maude, of the Montrose Yards, also secured a few good birds. Mr. W. H. Treganowan, of Newport, bought one of old 'Freddy Ball's' first sons in 'Gus Kearney,' and some four or five pullets, and of all the buyers he seems to have had the best results. At Essendon, the opening Show of '97, he did not exhibit; but at Williamstown and the Exhibition he secured every card in the young classes, his team showing beautiful type and quality throughout, and his three cockerels were real top-penners, and I am positive no breeder in Australia has three better ones in type of his own breeding *in any colour*. As Mr. Treganowan tells me he is removing his birds to his Farm at Poowong, in South Gippsland, where they will enjoy the same natural advantages as Mr. Maxfield's, I believe he is making a good move towards securing the premier position among breeders of the White variety, a point he has already partially attained.

"In conclusion, I would like to bring under the notice of my readers the wonderful way in which the Plymouth Rock has caught on in its original home, the New England States of America. In New Hampshire, Vermont, Massachusetts, Maine, Rhode Island, and Connecticut—those States in which Yankee go and grit had its birth, where the famous Vermont Merino sheep was originated, whose top-crosses have done so much towards improving the flocks of Australia, and in which no breed, be it bird or beast, is allowed to live unless they are 'Dollar Earners'—Plymouth Rocks are to be found in hundreds on almost every farm, and in thousands in every country district. They simply hold undisputed possession, and that after a trial of fully 40 years. This verdict I would ask the Farmers of this country, for the sake of their own pockets, to keep in mind, as I am convinced that equally as well in the Southern districts of Australia, as in the New England of America, no breed on earth is so well adapted to thrive and pay as the Plymouth Rock Fowl."

The following additional notes and instructions on mating and breeding Barred Plymouth Rocks are kindly supplied by Mr. W. F. Weeks, of Wentworth Falls, N.S.W., a most successful breeder and exhibitor of the variety. This gentleman writes: "This useful and favourite breed of Poultry is an American production, being the result of a scientific combination of several breeds for the purpose of producing a Fowl that would possess the useful qualities of ALL, and at the same time be pleasing to the eye in combination with a fine, hardy constitution. That our 'American cousins' were successful is fully admitted by the whole of the English-speaking communities, so that it is a most difficult matter to write anything fresh on the breed. Their qualities as Table Fowls are recognised in Victoria, they being bred in that Colony largely for export to England, and it is claimed that this breed has topped the market in prices realised for several years in the Home markets. The hens are good layers of large brown-coloured eggs, and although the breed is of a very active disposition, and excellent foragers, they are easily confined within bounds by wire netting 4 ft. in height, even though when in close proximity to a garden, as their great weight of body effectually prevents them from flying to that height. Plymouth Rocks are so hardy that when some years back I wrote to a Poultry paper, making the statement that I had reared almost every chicken hatched, I was laughed at by other correspondents, one going so far as to state that 'Rocks could only be killed by a hatchet.' So many persons look upon pure-bred Poultry as mere Fancy birds, that I have been compelled over and over again to reiterate that Plymouth Rocks are, without exception, the easiest to rear, and the hardiest in constitution when reared, of any breed I know of, and as I have experimented with every breed of Poultry, besides various crosses, and in days gone by, scrub stock, I claim to be an authority on the subject. The breeds that were blended to produce this grand Fowl will never be correctly known, but the American Dominique and the Black Java were the chief ones.

"The American type of Rock is lighter in colour, and tighter in feather than the English, and APPEAR smaller, but are very little, if any, inferior in weight. While striving to breed to the English Standard of colour, I have preferred the American stamp in the tightness of feather, for the sole reason that I have found the *tight-feathered birds the best layers*, consequently, I am sometimes told that I exhibit small birds by those who do not understand the breed.

"In giving your readers a few practical hints on mating and breeding to obtain Exhibition points of excellence, I differ somewhat to other writers, who make out that the Rock is a difficult bird to breed to

Show requirements. I have proved that by mating even coloured birds on both sides that equally as large a percentage of good stock, fit for Exhibition, will be produced as from any other breed. I readily admit that light-coloured cockerels and dark pullets, and some even quite black pullets are found in almost every clutch; but, then, no one ever found a whole brood of any other variety that were all Show specimens. No doubt the Judges, by awarding prizes to very dark cocks and cockerels, encourage, to a great extent, the mating of extra dark birds, and this is distinctly responsible for the great percentage of dark pullets produced by some strains; but I have found that by mating a medium-coloured cock to hens not too dark in markings I obtain the best results. The Standard requires the feathers to be evenly barred to the skin, yet how few Judges ever look below the surface? The feathers, as shown in illustration (A) are what breeders should strive for, because birds with feathers marked in this manner will throw a far greater number of Show chickens than those with feathers barred only at the tips, as shown in illustration (B), and white near the skin, although this latter marking may look as well in the Show pen, provided the feathers are not ruffled, and, in fact, I have at times seen birds which were worthless as breeding stock awarded prizes, while evenly marked birds of great value have been unnoticed. Another point of the Standard which is frequently overlooked is yellow legs and beaks. To my mind, a good strong pair of clear yellow legs is one of the best points in a Rock; but how often one notices birds winning with but little else but size to recommend



FIG A.



FIG B.

them, and with dirty and sooty legs and feet! Who would think of awarding a prize to a White Leghorn that had legs more black than yellow? Yet this is what frequently occurs in the Plymouth Rock classes. Dark beaks are, I admit, difficult to 'breed out;' but as long as Judges continue to award prizes to cocks extra dark in colour, they will be with us. White in ear-lobe is, again, I am sorry to state, not noticed by some Judges, although the Standard places this serious defect in the list of disqualifications. I strongly advise to avoid breeding for the Show pen from any bird which possesses this serious fault. I wish it to be clearly understood that the foregoing remarks apply to the breeding of Exhibition stock. Dark females and light males are equally as useful for egg-producing and table requirements as their better coloured relatives. Still, there is no doubt that even coloured birds look ever so much more attractive, and on this account would be better attended to by both the Farmer and householder, who keep a few head to supply the table with eggs, and an occasional delicacy in the shape of a young chicken.

"In giving a few hints on hatching and feeding, the first point to ensure successful hatching is judicious mating. A good active cock or cockerel of medium size and of good colour, mated with six or seven large-bodied hens unrelated to the cock, will be certain to give good results. As adult hens of this breed are inclined to become too fat, the food supply must be carefully regulated. Three parts pollard and one part bran, mixed with hot water into a crumbly mass, is quite the best morning food, and wheat is the best grain food to be given in the evening, although during the winter months maize every alternate day can be fed at

evening. Plymouth Rock hens make good mothers, and though heavy they are not clumsy, and on account of their size can easily cover from 15 to 18 eggs. To those who prefer artificial incubation, I recommend rather more moisture in the incubator with Rock eggs than with white-shelled ones of other varieties, because of the extra toughness of the inside skin and the hardness of the outer shell. The chicks, when hatched, should be black on the upper parts of the body and creamy white on the under parts, with a white spot on the top of the head. The first barred feathers appear on the wing, and at the very early age of ten or twelve days an expert can form a very good idea of the future marking, as well as the sex of the chickens. Very little food is required during the first twenty-four hours of their existence; after that the rule should be a little and often, just as much as the chicks can eat up readily. Every hour for the first few days is the best plan, then every two hours until three weeks old. Bread crumbs and oatmeal are the best foods for the first week, then a little fine-crushed maize, increasing the quantity of maize, until from a fortnight old this should be their staple food. Plenty of green food is essential. If the chicks have the run of a good grass-plot they will look after this part of their feeding themselves, but if not, turnip tops or cabbage leaves will not only supply them with green food, but also provide them with amusement and exercise. Where there is a vegetable garden no place can be better for the young chickens than running in it, as while young they will do no harm. Some of the best broods I have raised were either allowed to run in my vegetable garden, or lent to neighbours to run in theirs. Place the hen in a roomy waterproof coop on one of the paths, and the chickens will quickly find their way amongst the cabbages, and destroy the insect pests and caterpillars without injury to the growing vegetables; thus, by this means they obtain much of their natural food. As soon as old enough to leave the mother the chicks should be placed in a pen by themselves, being closed up in a well-ventilated coop at night, as security from rats and other vermin; during the day they can take care of themselves. Keep them active and well fed, and they cannot but thrive. Provide sufficient sharp grit, green food, and fresh water shaded from the sun. It will be noticed that I do not advocate feeding chickens with hard-boiled eggs and other dainties. The reason is that I have found them do far better on plain food. From a month old I give them just the same food as adult stock, except that the grain is cracked for the chicks. When about three months old they are able to eat their grain whole. A little cooked meat is relished by and good for Poultry of all ages, but a mistake is frequently made by feeding too much. At three or four months old it is advisable to separate the cockerels from the pullets, as the chickens then will arrive at maturity slower than if kept together, and so attain greater size and weight—two prime considerations in the breeding of Plymouth Rocks.”

SCHEDULE FOR JUDGING BARRED PLYMOUTH ROCKS, PEA OR SINGLE COMBED.

(A bird perfect in shape, style, colour, size and condition to count 100 points.)

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head	6
„ Comb	8
Too long or too thin neck	8
Deficient barring on breast and body	10
„ „ „ Wing	6
White in tail	8
Softness of feather	5
Badly shaped body	8
Washiness in hackle	6
Bad legs and feet	5
Want of size	10
„ „ Symmetry	10
„ „ Condition	10

DISQUALIFICATION.

Crooked back, crooked breast, wry tail, or any other evident sign of weakness or deformity, feathers on shanks or toes, legs any other colour than yellow, enamelled white in ear-lobes, deformed beak, twisted primaries : red, yellow or brown coloured feathers in plumage ; any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING WHITE AND BUFF PLYMOUTH ROCKS.

(A bird perfect in shape, style, colour, size, and condition to count 100 points.)

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head	6
„ Comb	8
Too long or too thin neck	6
Badly shaped breast and body	20
Bad wings	6
„ Tail	8
Softness of feather	5
Bad legs and feet	7
Want of size	14
„ „ Symmetry	10
„ „ Condition	10

 100

DISQUALIFICATIONS.

Crooked back, crooked breast, wry tail, or any other evident sign of weakness or deformity, feathers on shanks or toes, legs any other colour than yellow, enamelled white in ear-lobes, deformed beak, twisted primaries : plumage any other than pure white throughout in the white, or buff in the buff : any fraudulent dyeing, dressing, or trimming.

To the kindness of Mr. H. Huntington Peck, the Hon. Sec. of the Victorian P-R-L.W. and O. Club, we are enabled to quote the following Standard issued by the Club for Plymouth Rocks :—

STANDARD FOR JUDGING BARRED PLYMOUTH ROCKS.

GENERAL CHARACTERISTICS.

COCK.

Size, large, not less than 9 lbs. : *Comb*, single, medium size, straight, with well-defined serrations, fine in texture, as much like a Cochin's as possible : *Beak*, thick and strong : *Head*, medium size, and carried well up : *Eye*, large, bright, and clear, hazel in colour : *Ear-lobe*, well developed and pendent : *Wattles*, neatly rounded and large : *Body*, large, square, and compact, breast very full ; *Back*, broad and short ; *Wings*, medium-sized, carried well up, bow and tip covered by breast and saddle feathers : *Shanks*, rather long, stout, and bony, wide apart, especially at hocks, and perfectly free from feathers : *Thighs*, large and strong : *Feet*, four-toed, stout, and strong ; *Tail*, like a Cochin's, small as possible, not forming an angle, but circular at junction with back ; *Carriage and Appearance*, upright, noble, and grand.

HEN.

Size, large, not less than 7 lbs. ; *Comb*, same as cock, but small ; *Beak*, *Head*, *Eye*, *Ear-lobes*, *Wattles*, *Neck*, and *Breast*, same as cock ; *Back*, broad, neck feathers flowing well over the shoulders ; *Wings*, *Shanks*, *Toes*, and *Carriage*, same as cock ; *Tail*, small, rather pointed, and slightly more upright than cock's ; *Thighs*, large, and well covered with fluffy feathers.

COLOUR OF BARRED PLYMOUTH ROCKS.

Comb, *Face*, *Ear-Lobe*, and *Wattles*, brilliant red ; *Beak* and *Legs*, bright yellow ; *Plumage*, cuckoo-feathered—viz., ground colour ashy grey, banded with blue or with black, the two colours blending into each

other, the shafts of the feathers corresponding with the bands, presenting upon the whole a perfect and even alternate clear barring of pure light grey and blue or black, and the plumage free from red, black, white, brown, or yellow feathers.

WHITE PLYMOUTH ROCKS.

General characteristics in all respects resembling the coloured variety.

COLOUR OF WHITE PLYMOUTH ROCKS.

COCK AND HEN.

Beak and Legs, a bright yellow; *Comb, Face, Ear-lobes, and Wattles*, brilliant red; *Plumage*, all over a pure spotless white, as free as possible from any straw tinge.

SCALE FOR JUDGING PLYMOUTH ROCKS.

(A bird perfect in shape, style, colour, and condition, to count in points 100.)

Head and beak	...	...	...	...	...	...	...	...	...	5
Comb	...	...	...	...	...	...	...	...	...	5
Shape of tail	...	...	...	...	...	...	...	...	...	10
Absence of white in deaf-ears	...	...	...	...	...	...	...	...	...	5
Size	...	...	...	...	...	...	...	...	...	15
Symmetry	...	...	...	...	...	...	...	...	...	20
Condition	...	...	...	...	...	...	...	...	...	10
Plumage	...	...	...	...	...	...	...	...	...	25
Colour of legs	..	...	...	...	...	...	...	...	...	5

100

The number of points to be deducted for each defect must be left to the discretion of the Judge.

DISQUALIFICATIONS.

Legs feathered, or any other colour but yellow; rose or pea combs, red feathers, coloured feathers in whites, white lobes, any deformity, and any tail sickle feather missing.



CHAPTER XXV.

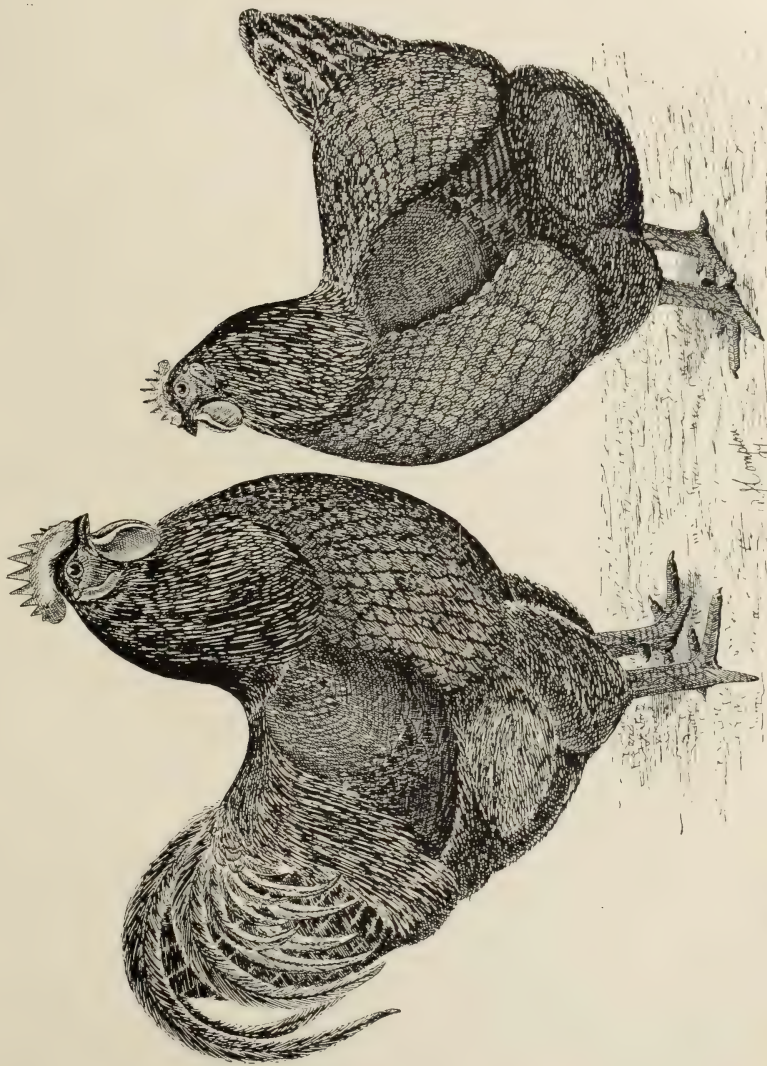
ORPINGTONS.

SINGLE-COMBED BLACKS.—This now fully recognised breed of utility Poultry is the result of systematic crossing of Langshans, Minorcas, and Plymouth Rocks, their origin resting in the hands of Mr. W. Cook, Kent, England. They take after the Langshan in general characteristics, but have clean legs. They are good winter layers, and the chickens mature quickly. The pullets generally commence to lay when between five and six months old, and a great feature in the breed is, that it matters little what period of the year they are hatched, the pullets will commence to lay at about six months old. The eggs laid are mostly a brown or tinted colour. The chickens are extraordinarily hardy, grow quickly, and fledge well, especially the pullets. They are a very docile Fowl, doing well in confinement, and stand hot weather remarkably well. The cock of the single-combed variety should have a perfectly erect single comb (without side spikes or twists), red face and ear-lobes, tail fairly erect, broad breast, dark eyes, black legs, and white toe-nails. The plumage should be a beautiful black throughout, with a nice beetle-green sheen on the feathers. The hen to match should have a nicely curved, dark beak, red face, dark eyes, single comb standing erect, the plumage black throughout, with a beautiful green lustre upon the feathers, black legs, and white toe-nails. Both cock and hen should also be white, or pinky white, on the bottom of the feet. The saddle feathers, or cushion of the hen should grow well up the tail, which gives the bird the appearance of a shortish back. The Orpington family contains several other varieties—the rose-combed Blacks and the single and rose-combed Buffs. The rose-combed Blacks should have rather neat rose combs, with a short spike behind, dark eyes, beak, legs and feet, full, broad chest, short in back, tail carried fairly high, legs short, the same plumage as the single-combed Blacks; the hens being similar to the latter, with the exception of the comb. The latest varieties of this breed are the single and rose-combed Buffs; but the composition of these birds is totally different, the Golden Spangled Hamburg, Buff Cochinchina, and Dark Dorking being the material employed. Time alone will prove whether or not this latter production will stand; but it is an undeniable fact that the single and rose-combed Blacks are here to stay.

In Judging Orpingtons, sprightliness and activity, with proportion, carriage, and condition should always be taken into consideration. Loose, flabby combs should also be strongly discouraged, and great length of shank and leg generally should also be strongly condemned, as the latter failing shows a distinct tendency towards the Langshan type; the Orpington, it must be remembered, being a stout, cobby, and compact bird.

The Schedule for Judging Orpingtons, given at the close of this Chapter, is in the main compiled from the 'Orpington Club's Standard,' England. We have made a slight alteration here and there in the wording, so as to make it clearer and more intelligible, and in the list of disqualifications have added some important points, omitted in the original. That the latter are necessary, if a Schedule for Judging is to be of any worth, will be patent to our readers.

For the following interesting article on the Single-combed Black Orpington Fowl, we are indebted to Mr. E. Butcher, of "Carbrooke," North Sydney, N.S.W., who has had some years' practical experience with the breed, and been more than ordinarily successful in the Show pen. This gentleman states:—"To Mr. W. Cook, of Orpington House, Kent, England, belongs the honour of having made the breed, and Fanciers throughout the world owe Mr. Cook a debt of gratitude for having produced a class of fowl that has few equals, no matter under what circumstances and surroundings they are kept. The crosses used to bring this now recognised breed to the high state of perfection it has attained were the three breeds known as Plymouth Rocks, Langshans, and Black Minorcas, and the idea of crossing these breeds was to produce a fowl which combined all the good and essential qualities of the three. This has met with a great measure of success, as the Orpington 'fills the bill.' The method followed by Mr. Cook was to cross Minorca cocks, choosing



Black Orpingtons.

Imported and owned by Mr. L. I. Ramsay, Five Dock, N.S.W.

COCKEREL.

1st and Special, Dairy Show, England, 1906.

PULLET.

1st, Dairy Show, England, 1906.

large, well-formed birds for the purpose, with sports of the Plymouth Rocks (that is, black hens), again crossing the pullets thus produced with clean-legged Langshan cocks; they now breed exceptionally true to type, though in former years, owing to their Standard qualities not being so firmly fixed, they were inclined to sport a little. They are excellent layers of fair-sized eggs of a light brown or buff colour, and as winter layers are unsurpassed by any other variety, and I have found them breed true to type, though occasionally a cockerel or two will come with red stripes in hackle and saddle. I find, however, that it is compulsory to have separate breeding pens—one to produce cockerels, the other pullets—to obtain my best Show specimens, but as this rule is followed out by nearly all Fanciers in whatever breed they keep, this does not show that the breed is not to be depended upon. At times I have bred both cockerels and pullets from the one breeding pen which scored high honours at our principal Shows, and if a little care and attention were devoted to the selection of the parent birds to this end, the majority of chickens of either sex would be of high class. The best strains of Orpingtons have white flesh and skin, and the quality of the meat is excelled by none. The chickens are extraordinarily hardy (no doubt owing, in a great measure, to their composition), fledge quickly and easily, grow at a great rate, and come, almost without exception, true to colour. The hens are better layers than any of their progenitors, especially during the winter months, when fresh eggs, as a rule, are scarce. The breed is of a very active disposition, considering their size, and they rank high as sitters and mothers. If kept in confinement they will give a good return, their plumage being adapted to 'wear well,' but if given a good range will be found as energetic as Hamburgs in looking up their own living. Where a thoroughly useful and handsome fowl, combined with utility qualifications is desired, I plump for the Orpington. I have had fair experience with other varieties, but none approach the Orpington as an all-round fowl. Of course, my experience is much the same as others in discovering that it is much easier to breed pullets than cockerels, the former coming very true from birds which would scarcely produce a single cockerel good in Show points; and for breeding cockerels it is especially necessary that the stock cock should be good in comb and lobe, and with a good sheen on the feathers if cockerels fit for exhibition are desired."

To Mr. L. L. Ramsay, of Lyons Road, Five Dock, N.S.W., we are indebted for further remarks upon the three varieties of Orpingtons, viz., Single-combed Black, Rose-combed Black, and the Buff. Mr. Ramsay states:—"In shape the three varieties should resemble each other, with the exception of the comb on the Rose variety, this latter being without doubt the noblest-looking of them all, the rose comb setting them off to such advantage—in my opinion excelling in appearance one of the most attractive of all breeds of Domestic Poultry, the Black Hamburg. The Rose-combed Orpington was founded by Mr. W. Cook, of England, from a cross between a Rose-combed Langshan crossed with Minorcas and Black Plymouth Rocks. These breed exceptionally true to feather, quite equalling the Single-combed Black variety, though now and then a chicken or two will appear with a feather or two on the legs and reddish in hackles, but I have found that in this instance that the fault was distinctly traceable to the same fault (though in a slighter degree) in the stock cock, so that it is necessary to use a bird for the breeding pen which is thoroughly sound in colour and clean in legs. Orpingtons have been my favourite breed of Poultry for some years, although many different breeds have passed through my hands. I first started with the Single-combed Blacks, but quickly obtained the Rose-combed variety, and have still further added to my stock with a trio of Single-combed Buffs. Treating on the first-named, I have found them excellent layers, and can depend upon obtaining eggs all the year. The chickens are very hardy and easily reared, and breed very true to colour, sheen, and shape. It is very rare to see a chicken with coloured feathers in hackle or saddle, and 99 per cent. are perfectly free from feathers on the legs. The Rose-combed variety quite equal the former-mentioned in every respect, actually being better layers, and certainly look more attractive to the eye.

"My experience with the Buff variety is more limited, as there were none in Australia previous to May, 1896, on which date I received a trio direct from Messrs. Cook & Sons, England; but during the past season they have proved their laying qualifications without doubt, the hens laying continuously from the first week in June till the end of November, and would have continued laying had I not induced them to incubate, in order to give their systems a rest after their long and trying voyage. The chickens bred from these birds

have turned out a good sound Buff colour in plumage, with nice white legs, and are very hardy, being very strong and of rapid growth, quite exceeding my expectations. As this colour becomes better known, I feel certain there will be great demand for Buff Orpingtons, more especially for crossing purposes. There is a great demand at the present time in England for Buffs for this purpose. For this they are specially adapted, their flesh quite rivalling the Dorking for quality and juiciness, and being the happy possessor of white legs—a great consideration in the breeding of Export Poultry.

“The three varieties of the Orpingtons are splendid sitters, and the best of mothers during warm weather; but my experience has shown that they cannot be depended upon to incubate during the cold weather, rarely sitting out their full term.

“From numbers of persons to whom I have supplied birds and eggs, and who are widely distributed throughout Australasia, one and all remark that the breed adapts itself to any climate, and will do remarkably well if confined in small yards or runs; and their plumage being of a self colour, they keep in good feather, where many other breeds would soon present a dilapidated appearance, and to those who wish to possess a few head of Poultry which offer no great obstacle to breed and rear, and which look well almost under any conditions, I strongly recommend the Orpington Fowl to their notice.”

SCHEDULE FOR JUDGING ORPINGTON FOWLS.

(Compiled from the Orpington Club's Standard, England.)

GENERAL CHARACTERISTICS OF COCK.

Head and Neck.—Head small and neat, carried erect, fairly full over the eye. *Comb*—The single-combed varieties of Black and Buff, comb of medium size, erect, evenly serrated, and free from side sprigs. The rose-combed variety of Black and Buff, neat, well-fitting rose combs, with plenty of work or spikes, and a medium-sized leader behind. *Wattles*, fairly long, thin and pendent; *Ear-lobes*, fairly well developed; *Neck*, medium in length, nicely curved, well furnished with flowing hackles; *Body*, general appearance cobby and compact; *Breast*, broad, deep and full, carried well forward, the breast-bone long and straight; *Back*, short, with broad shoulders; *Saddle*, rising slightly; *Tail*, medium size, flowing, and inclined backward; *Hackles*, full, both neck and saddle; *Legs and Feet*, strong, short, four toes on each foot; *Size*, large, 9 to 11 lbs. as cocks, 7 to 9 lbs. as cockerels; *Carriage*, erect and graceful.

GENERAL CHARACTERISTICS OF HEN.

Head and Neck.—Head small and neat, carried erect, fairly full over the eye. *Comb*—The single-combed varieties of Black and Buff, comb of medium size, erect, evenly serrated, and free from side sprigs. The rose-combed varieties of Black and Buff, neat, well-fitting rose combs, with plenty of work or spikes, and a medium-sized leader behind. *Wattles*, small and thin; *Ear-lobes*, small; *Neck*, medium in length, and nicely arched; *Body*, general appearance very cobby and compact; *Breast*, broad, deep and full; *Back*, short, with broad shoulders; *Cushion*, small, but sufficient to give the back a short and gracefully curved appearance; *Tail*, medium size, inclined backward and upward; *Legs and Feet*, strong, short, four toes on each foot; *Size*, large, 7 to 9 lbs. as hens, 6 to 8 lbs. as pullets; *Carriage*, sedate and graceful.

Colour of Single and Rose-Combed Black Orpingtons.—In Both Sexes: *Beak*, black; *Comb*, *Face*, *Ear-lobes*, and *Wattles*, brilliant red, with as few small spiky feathers as possible; *Eyes*, black, with dark brown iris; *Legs and Feet*, black; *Toe-nails*, white; *Soles of Feet*, white; *Plumage*, dense black throughout, with a “green sheen,” or lustre upon the feathers; *Skin*, white; *Flesh*, white.

Colour of Single and Rose-Combed Buff Orpingtons.—In Both Sexes: *Beak*, white; *Comb*, *Face*, *Ear-lobes*, and *Wattles*, brilliant red, with as few small spiky feathers as possible; *Eyes*, yellow, or even red not objectionable; *Legs*, *Feet*, and *Toe-nails*, white; *Plumage*, even lemon buff colour throughout, free from coloured feathers, or mealiness; *Skin and Flesh*, white.

VALUE OF DEFECTS IN JUDGING.

A bird ideally perfect in shape, style, size, head, colour, comb, feet, legs, and in perfect health and condition, to count 100 points,



Buff Orpingtons.

Imported and owned by Mr. L. L. Ramsay, Five Dock, N.S.W.
Winners of many prizes in England, and also great winners at Intercolonial Shows throughout Australia.

POINTS TO BE DEDUCTED.

Bad plumage and condition	...	...	...	...	...	...	...	...	...	10
Bad head	...	...	...	...	...	...	...	...	...	5
Bad comb	...	...	...	...	...	...	...	...	...	7
Bad face	...	...	...	...	...	...	...	...	...	5
Bad coloured beak	...	...	...	...	...	...	...	...	...	3
Bad coloured eyes	...	...	...	...	...	...	...	...	...	5
Bad shape	...	...	...	...	...	...	...	...	...	15
Deficient breast	...	...	...	...	...	...	...	...	...	10
Bad tail	...	...	...	...	...	...	...	...	...	5
Faulty saddle, cushion, or back	...	...	...	...	...	...	...	...	...	5
Bad legs and feet	...	...	...	...	...	...	...	...	...	5
Deficiency in colour of skin and flesh	...	...	...	...	...	...	...	...	...	5
Bad carriage	...	...	...	...	...	...	...	...	...	10
Want of size...	...	...	...	...	...	...	...	...	...	10
										100

DISQUALIFICATIONS.

Crooked breast, crooked back, wry tail, or any other evident sign of weakness or deformity; the slightest feather or fluff on shanks and toes; yellow skin, yellow legs or feet, long legs.

To the kindness of Mr. H. Huntington Peck, the Hon. Sec. of the Victorian L.P.R.W. and O. Club, we are indebted for the Club's adopted Standard for Orpingtons:—

STANDARD FOR JUDGING SINGLE-COMBED BLACK ORPINGTONS.

STANDARD OF COCK.

As the male bird is so much more important than the hen, great care should be taken in judging the cock, the Standard for same differing somewhat from the hen.

Plumage.—Black throughout, with a green sheen upon it, free from coloured feathers; *Comb*, single, evenly serrated, standing erect, and rather larger than that of a Plymouth Rock; *Face and Ear-lobes*, red; *Beak*, dark horn or black, very strong, and nicely curved; *Legs*, dark or black, very strong, of medium length, with four toes on each foot, and white toe-nails; *Tail*, large and flowing, carried well back; *Carriage* very graceful, standing well up; *Weight*, not less than 9 lbs. when fully matured; *Shape*, compact, resembling a Langshan; *Saddle*, rising slightly.

SCALE FOR JUDGING.

Points.	Defects.
Size... .. 25	Want of size 20
Condition and lustre of plumage ... 30	„ „ condition 30
Carriage and shape 20	Lop comb 10
Head and comb 10	Leg weakness 20
Legs and feet 10	Bad colour and stained ear-lobe ... 10
Fine quality of skin and flesh ... 5	Crooked breast 10
100	100

STANDARD OF HEN.

Carriage and Shape.—Very graceful and symmetrical. *Comb*—About the size of a Langshan's, but rather firmer, single, red, and evenly serrated, standing erect preferred. Should it fall a little to one side, and the bird is good in other points, it is not a disqualification, this being one of the principal features of good laying qualities. *Beak*, same as that of cock; *Head*, rather full over the eye, and carried well back;

Eye, hazel or brown, with black pupil, bright and intelligent; *Face and Ear-lobes*, red, free from any white specks; *Breast*, very broad and deep, with straight breast-bone; *Tail*, carried fairly back, of medium size; *Cushion*, small, just sufficient to give the back a graceful appearance. *Legs*, short and strong, dark or black in colour, white toe-nails, and free from any feathers; four toes on each foot, well spread out from each other. Hens over one year old are paler in the leg. This should not make any difference in judging them. *Weight*, not less than 7 lbs. when fully matured; *Plumage*, deep black throughout, with a lustrous green gloss upon it.

SCALE FOR JUDGING.

Points.	Defects.
Size... .. 25	Want of size 25
Good shape and carriage 10	„ „ colour 15
Condition 30	„ „ condition 30
Richness of colour and gloss of plumage 10	Lop comb 5
Head and comb 10	Coarse skin and flesh 10
Legs and feet 5	Coloured feathers, and want of shape 15
Quality of skin and flesh... .. 10	
100	100

STANDARD FOR ROSE-COMBED ORPINGTONS.

Same Standard for Rose-Combed Orpingtons, except that combs of the latter shall be rose, firm on the head, oval in shape, terminating in a spike at rear; surface uniformly studded with small points; the whole comb slightly curved to match shape of head. The comb of the hen to be smaller than that of the cock in proportion.



CHAPTER XXVI.

SCOTCH GREYS.

FOR the following remarks on this useful, though so little known, breed of Poultry in this country, we are indebted to the kindness of Mr. Jas. B. Crawford, of "Broomward," Alphington (Vic.) Mr. Crawford states :—

"The Scotch Grey is one of the oldest pure-bred breeds of Poultry in existence, having been known in Scotland for a hundred years at least, and are still in great favour amongst Scottish farmers, but they have never become popular outside of that country. The Scotch Grey belongs strictly to the Utility class of Poultry, being a good layer and a fine table fowl, a combination which the wide-awake Practical Poultry Farmer is always on the look-out for. The hens are excellent layers during the winter months, and the pullets rarely evince a desire to incubate.

"Their homely appearance is against their becoming popular amongst Fanciers. They occupy relatively the same position amongst Poultry in Scotland as the Dorking does in England, being well adapted for table purposes. The type is described as being between that of the old-fashioned Game Fowl and Dorking. They have the white legs and skin required in Table Poultry for the English market, and good in breast and wings, with small bones. The flesh is delicate, and no more desirable dish could be provided for an epicure than a Scotch Grey cockerel six months old. Being rather tight and close in feather, they look smaller than they really are, and there is as much meat on an average Scotch Grey as on a Plymouth Rock. They are above the average as layers, and the pullets' eggs from the first are large enough for market, being rather larger than the average Leghorn egg, and about the same size as the Andalusian. The eggs are slightly tinted in colour. I have never known the hens to go broody more than once in a season, and they make the very best of mothers, being similar to the Game hen in protecting the chickens. The cockerels, however, are the least pugnacious of any breed that I have handled.

"I find the months of April and May in this colony the best time to hatch the chickens, and they are easily reared in cold weather; the winter Scotch Grey chickens are always the largest. The pullets hatched about this time then come on to lay in December, and the cockerels are ready for the Christmas market, and realise the highest prices. When crossed with any other variety of Poultry, the progeny take after the Scotch Grey very much in appearance and possess most of their good qualities, thus proving how firmly established and prepotent the breed is. They are not well known as yet in Australia, few Fanciers taking them up as Show Fowls. This tends to keep the breed in the background, but I have no doubt numerous specimens of the breed could be found in many farmyards throughout Australia; and I believe that many a pure, or at least half-bred Scotch Grey, is partaken of and enjoyed at Christmas time unknown to the consumer. It is about ten years back that they were first exhibited in Melbourne (Vic.), but the specimens were very moderate; however, within the past five years at the Victorian Shows no finer samples of the breed could be seen in Scotland than at some of the leading Fixtures.

"In breeding Scotch Greys for the Show pen, it is compulsory to mate up separate pens for breeding the sexes. To get cockerels up to Standard requirements, it is best to mate a rather dark cockerel, small in check or barring, and of a steel-grey ground colour, good in head points, shape, style, etc., mating him with hens as dark as possible, but distinctly barred, and if with hackles almost black so much the better; but, for breeding pullets, a light-coloured cockerel should be selected and mated with hens clear in check or barring, these latter hens being the Standard colour for the Show pen. From this mating the pullets will come uniformly good, and the cockerels will be again useful to head the pen for breeding pullets the following year."

The following is the Scotch Grey's Standard of Excellence, which will be found full and explanatory :—

COCK.

Comb.—Single, medium size, fine in texture, perfectly straight and upright, and with well-defined serrations, free from side sprigs, coming well down on the head behind, and bright red in colour.

Beak.—Strong, well curved, white in colour, or white streaked with black.

Head.—Neat, long and fine.

Eyes.—Large, bright and clear.

Ear-lobes.—Medium size, fine in texture, and bright red in colour.

Wattles.—Medium length, well rounded on the lower edges, and bright red in colour.

Neck.—Medium length, finely tapered, well arched, and having the hackle flowing down on shoulders and back.

Breast.—Broad, deep, and full, and carried well forward and upward.

Body.—Medium length, compactly built, and full of substance.

Wings.—Medium size, carried well up, distinctly barred bow and tip.

Tail.—Medium size, carried well up, and receding from body (not squirrel), with flowing sickles and secondaries, nicely and evenly barred.

Thighs.—Long, straight, wide apart, and strong; not quite so prominent as in Game.

Legs.—Strong, and rather long, white in colour, or white mottled with black, not sooty.

Feet.—Four-toed, stout and strong, same colour as legs, toes straight, and well spread out.

Size.—The larger the better, if combined with quality.

Shape.—Neither Dorking nor Game, but a blend of both, *i.e.*, having features allied to both.

Carriage and Appearance.—Erect, lively, active, bold, and graceful.

Plumage.—Cuckoo feathered, the ground colour of body, thighs, and wing feathers should be bluish white, whilst that of hackle, saddle, and tail feathers may vary from bluish white to light grey. The colour of the barring must be glossy black, with a metallic lustre. The barring on the body, thighs, and wing feathers should be straight across, whilst that on the hackle, saddle, and tail may be slightly angled, or V-shaped, and the alternating bands of black and light grey should be equal in width, and proportioned to the size of the feather. The bird should be a uniform shade of colour throughout, whether bluish white or light grey, and be perfectly free from red, black, white, or yellow feathers, and the hackle, saddle, and tail should be distinctly and evenly barred. The whole of the markings should be rather small, even, distinct, and sharply defined.

HEN.

Comb.—Medium size, fine, evenly serrated, either erect or falling slightly over.

Beak.—Strong, well curved, white in colour, or white streaked with black.

Head.—Neat, long and fine.

Eyes.—Large, bright and clear.

Ear-lobes.—Medium size, fine in texture, and bright red in colour.

Wattles.—Medium length, bright red, well rounded on lower edges.

Neck.—Rather long, hackle distinctly marked, and same shade as body.

Breast.—Broad, deep and full, and carried well forward and upward.

Body.—Medium length, compactly built, and full of substance.

Wings.—Medium size, carried well up, distinctly barred bow and tip.

Tail.—Medium size, well marked, receding from body, not squirrel.

Thighs.—Long, strong, and well shown.

Legs.—Rather long, pinky white or slightly mottled, not sooty.

Feet.—Four-toed, stout and strong, same colour as legs, toes straight, and well spread out.

Size.—The larger the better, if combined with quality.

Shape.—Neither Dorking nor Game, but a blend of both, *i.e.*, having features allied to both.

Carriage and Appearance.—Erect, lively, active, bold, and graceful.

Plumage.—Same as cock, but markings rather larger, even and distinct, producing an appearance like Shepherds' Tartan.



Scotch Greys.

Imported by Mr. J. B. Crawford, "Broomward," Aplington, Victoria.
Winners at all the principal Shows in Scotland.

CHAPTER XXVII.

WYANDOTTES.

IN the Wyandotte we have one of the most useful and ornamental races in the Poultry World; their origin is purely a matter for conjecture, but that they were made up from various breeds goes without saying, but this question of their origin is of small importance, as the best strains now breed quite true to colour and shape. Some strains, though seemingly well fixed in markings and general characteristics, yet occasionally throw a small percentage of chickens with feathers on the shanks. That the Hamburg was employed in their manufacture is evidenced by the rose comb and the prolific laying capabilities which the hens possess. The style and carriage of the Wyandotte is somewhat similar to the Brahma, though their appearance is lighter, more active, and consequently smarter. The breed in size may be classed as medium—occupying a position about midway between the gigantic size of the Asiatic breeds and the smaller Mediterranean varieties. Great claims are tendered on their behalf as to their generally good all round useful qualities. The chickens are hardy, grow at a great rate, and arrive at maturity fairly early, in nearly all instances being plump and meaty from chickenhood. The hens lay all the year round, with occasional short breaks, and are the best of sitters and mothers, being very careful with their chickens, though at times, especially in the spring, they will generally commence laying when their chickens are about a month old, thus leaving them rather too early. Wyandottes are now bred in six varieties, viz., Silver-laced, Golden-laced, White, Black, Buff, and Cuckoo.

GENERAL CHARACTERISTICS OF WYANDOTTES.

THE COCK.

Head.—Short, broad, and nicely rounded; *Comb*, rose, firm and even on the head, full of fine work or spikes, low set, square in front, and gradually tapering towards the spike which should follow the curve of the back of the head, fit closely, and be of medium length. The comb should not be as full of work as the typical Hamburgs, neither should the spike behind be so long, and on no account possess an upward tendency. The comb should be almost as wide at the base as at the top, but should not protrude far over the side of the head. *Face and Wattles*, bright red, the wattles well developed; *Ear-lobes*, bright red, free from yellow or white spots; *Neck*, medium length, well arched; *Hackle*, full and flowing; *Back*, short, broad, and flat; *Saddle*, broad, and rising gracefully with a concave sweep to the tail; *Body*, short, broad, deep, and well rounded; *Wings*, moderate in size, well tucked up; *Tail*, well developed, sickles of medium length, fluff plentiful; *Breast*, broad, deep and full; *Shanks and Feet*, shanks medium length, stout and strong; *General Carriage*, active and vigorous; *Weight*, cockerels 7 lbs., cocks 9 lbs. The hen should be similar to the cock in all points, making allowance for difference in sex. *Weight*, pullets 5 lbs., hens 7 lbs.

POINTS OF COLOUR IN SILVER WYANDOTTES.

THE COCK.

Beak, Shanks and Feet, bright yellow or orange, quite free from feathers; *Eyes*, bright bay; *Head*, pure silvery white, quite free from a yellow tinge; *Neck Hackle and Saddle Hackle*, pure silvery white margin all round the feather, with a well defined black stripe in the centre; *Breast*, the centre of the feather white, with a well defined black lacing extending right round the feather, each feather from throat to thighs being accurately laced with black. This distinctive lacing must be uniform. The under colour of the fluff a dark slate. *Back*, silvery white, without any admixture of yellow or straw coloured feathers; *Tail*, black, with a greenish lustre; *Wings*, shoulder-coverts and wing-bow, silvery white; *Wing-coverts*, white, heavily laced with black, forming two well defined "bars"; *Secondaries*, black on the inner

web, and wide white edging on the outer, with a black spot to the end of each feather, forming a bar from the wing-bar to the tip when the wing is closed; *Primaries*, black on the inner web, white on the outer; *Thighs*, well covered with soft feathers of black or dark slate, slightly powdered with dark grey; *Fluff*, black or dark slate, powdered with dark grey.

THE HEN.

Head and Neck Hackle.—Marked similarly to the cock's, the feathers, however, being broader and shorter; *Breast*, white, with each feather from throat to thighs distinctly laced with greenish black right round the margin of the feather; *Back and Cushion*, marked exactly the same as the breast; *Tail*, black, with greenish reflections, the tail coverts white, with black lacing all round; *Wing-bars*, *Secondaries*, and *Primaries*, marked as the cock's; *Fluff and Legs*, the same as the cock's.

Some latitude as to depth of lacing is allowable, providing that the lacing is pure black and unbroken. The under-colour in both sexes is very important, any bird failing in this respect should be strongly avoided for breeding. One of the principal failings in the cocks is want of purity of top-colour and saddle hackles, and undoubtedly is one of the most difficult faults to breed out, and a bird that has a tendency to run yellowish on the wings, or whose hackles are *tipped* with black, should not be bred from, and again, a cock whose hackle feathers are wanting the distinct black centre, or who has white in tail, should also be discarded. Cocks deficient in breast lacing will also throw mossy coloured chickens, a light breasted bird being almost useless. Double lacing is another serious failing, and again, in the wing-bar markings many are seen with spangled bars. These are all grave faults, and difficult to eradicate. Many of these faults are found in the hens, the cushion feathers of some otherwise good specimens, exhibiting a V lacing; this is a serious failing, as well as mossiness. The lacing throughout the body, breast, and back, should be uniform, not patchy or unequal.

The Golden Laced owes its origin to the Silver crossed with a breed of fowls known in America as the "Winnebagoes," a golden-coloured fowl, though there is some truth in the statement that the Indian Game has been used to some extent to obtain greater depth of ground colour. This cross exhibits itself in the carriage and closeness of feather, and, in some instances, loss of head qualities. In general characteristics the Golden are identical with the Silvers.

POINTS OF COLOUR IN GOLDEN WYANDOTTES.

THE COCK.

Head.—Rich golden; *Neck and Saddle Hackles*, rich golden colour, with black markings as in the Silvers. The Neck Hackle and Saddle Hackles should be the same shade of colour. *The Back, Shoulder Coverts, and Wing-bow*, should be a rich golden red; *Breast*, rich golden bay, with black lacing as in the Silvers; *Wing-bars and Flights*, rich golden bay, with black lacing bright and lustrous; *Under-colour*, black, or slightly powdered with yellow; *Shanks and Feet*, bright yellow or orange.

THE HEN.

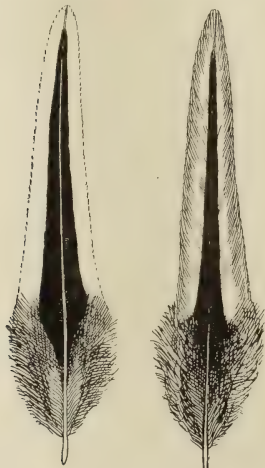
Head and Neck Hackle.—Golden, laced with black. *Breast, Back, Cushion, Wings*, bright golden bay, laced as in the Silvers; wing-bars and secondaries same as in the cock; *Tail*, black; *Tail Coverts*, bright golden bay in the centre, distinctly laced with black. *Under-colour*, same as in the cock.

Much the same faults will be found in this colour as in the Silvers, and should be guarded against, and the backs and wing-bows will often be found too dark, the wing-bars often running into a solid black. The ground colour throughout both sexes should be rich and bright, and not have a pale or washed out appearance. The legs and feet in the Golden are also a source of trouble to breed to standard requirements, dark sooty legs with green spots being too often prominent. These are faults that may be "bred out" by selection and preference in mating the stock birds.

In mating the Silvers and Golden to produce high-class show specimens, the same rule will apply taking care that, whichever colour is selected, the ground colour is clear and bright, not mealy or mossy. To breed either of the colours to standard requirements it is almost necessary to mate up separate breeding pens for the production of cockerels and pullets respectively. Therefore to produce cockerels, a cock

should be selected of good size, neat head and comb, the latter following well the curve of the head, ear-lobes and face rich bright red, without any tendency to yellow or white, the neck of fair length, full hackle, the stripe clear and distinct, chest broad, breast full and well-rounded, legs of medium length and of a bright yellow colour, the breast-lacing sharply defined, the wing-bars evenly laced, tail quite free from white. The pullets to mate with a bird of this description should be heavily-laced, their hackles well-striped, and the *under-colour* of the feather sound. The better the pullets are laced on wings and bars, the better the cockerels will turn out in this important point. A little mossiness in the cushion feathers of the females for cockerel breeding will not matter to any great extent, providing the *lacing* to each and every feather is black and distinct.

In mating up the stock birds for pullet breeding, a cockerel should be selected much darker than the one used for cockerel breeding. He should be sound coloured in under-feather and fluff, with breast-lacing rather heavy, his hackles heavily striped, his back and wings sound in colour, the wing-bars heavily marked but distinct, the flights well laced, and his tail pure black, with a good sheen. If a bird of this



1.—Perfect.

2.—Faulty.

FIG. 72.—Hackle Feathers of Silver-laced Wyandotte Cockerel.



FIG. 73.—Perfect Breast Feather of Silver-laced Wyandotte Cockerel.



FIG. 74.—Faulty Breast Feather of Silver-laced Wyandotte Cockerel.

description is examined, and the saddle hackles near the tail have pure white centres in the Silvers, or bay in the Golden, this is called pullet-laced, and may be depended upon to breed the best and clearest-cushioned pullets. The hens to mate with this stamp of cock should be sound in ground-colour of cushion, clearly and distinctly laced all over with pure sound black, taking care to avoid hens that are patchy in markings on the shoulders or cushion. The thighs and under-colour of fluff should be sound in all stock birds, and, when selecting hens to mate with a cockerel for pullet breeding, it is always best to select some a trifle heavier laced than others, as it is next to impossible, without experiment, to decide *what exact depth of lacing* will suit the cockerel best to give the highest results.

One important point not to be overlooked in breeding the laced varieties is to discard stock birds in which the lacing is cross-cut shaped, or which does not extend right round the feather.

The combs of all the stock birds should be small and close-fitting, and the colour of the legs should be as bright a yellow as possible. The whole of the stock should be active and vigorous, and have some

percentage of the home blood in their composition if uniformity of type is desired in the progeny. This will prevent the tendency to reversion, which is strongly marked in the Wyandotte if crossed with another strain, one injudicious cross causing no end of trouble.

The bird thus shown as the one suitable to breed *cockerels* from, would be right up to standard requirements, being mated with stock hens, and the hens to breed *pullets* from, would be such as required to win in the show pen. Many hens in their second year, that were, as pullets, all that could be desired, moult out very faulty, but can safely be depended upon to throw chickens as good as they were when young, if properly mated, so on no account should be discarded; but, on the other hand, a hen, no matter how perfect she may be in markings, if bred from light or off-coloured parents, will be totally unreliable for the breeding pen.

The White Variety are generally recognised as a sport from the Silvers. In support of this contention it is fully admitted that Silvers do occasionally throw white chickens. The Whites are the same in general characteristics as the other colours. There are one or two important points on which too much stress cannot be laid, one of these is purity of plumage, not only on the surface, but the under-colour should also be pure white to the skin. In breeding this variety one difficulty to overcome is the very marked tendency the cockerels have to appear yellow on back, wings, and fluff. No doubt much of this yellowness on the surface



FIG. 75.—Perfect Breast Feather of Silver-laced Wyandotte Pullet.



FIG. 76.—Faulty Breast Feather of Silver-laced Wyandotte Pullet.



FIG. 77.—Perfect Cushion Feather of Silver-laced Wyandotte Pullet.



FIG. 78.—Faulty Cushion Feather of Silver-laced Wyandotte Pullet.

can be attributed to the effects of the sun, but this can easily be distinguished from a natural yellow tinge, the under-feather of a pure coloured bird remaining pure white. Many cockerels also fail in neck hackle, which is not apparent until the bird is handled, often the surface feathers hiding more or less yellow feathers. This is a most objectionable fault, and one which should cause a bird possessing it to be discarded for breeding. In the Whites the legs and beak should be the brightest orange colour, and the lobes should be rich bright red. More stress should be laid on head points in the Whites, and any deficiency in these points should be more severely dealt with than with the Laced varieties, as any self coloured variety is comparatively easy to breed in comparison. Another peculiar trait in breeding any white variety of poultry is that birds in their second year mostly moult out much purer in colour than in the first feather. The Whites are quite as hardy as the other varieties, the chickens grow quickly, and the hens as egg producers are quite the equal of the Laced. In breeding Whites for exhibition great care must be exercised in selecting a cock bird to head the pen that is *pure in colour*, with plenty of feather, and good in head and comb. The hens to match should be of good frame, sound as possible in colour, and good in head points, beak, legs, and feet.

The Black Wyandotte is rarely seen, and is also considered a sport from the Laced. Their plumage should be of a rich metallic black throughout, any other coloured feathers in the plumage being a fatal defect. The same rule may be followed for breeding as that given for the Whites, selecting as stock birds those most lustrous in plumage.

Buff Wyandottes are of quite recent introduction, and in their manufacture much Buff Cochin blood has been used. They were produced in America and England both, at much about the same time. In the former country the Silver Wyandotte was employed, being crossed with a breed of fowls known as the Rhode Island Reds. In the latter the Silver Wyandotte was crossed with the Buff Cochin, breeding for the colour of the Cochin, with the shape and characteristics of the Wyandotte. The Buffs are now fairly well established, and bid fair to outstrip their brethren for popularity; they are good layers of a brownish egg, in size a little larger than the rest of the Family. They are not so inclined to broodiness as the Whites, Silvers, or Golds, and are much easier broken off the inclination to incubate. When anything like perfect in plumage they are strikingly handsome and attractive. They also run a trifle heavier than the other varieties, some specimens weighing: cocks 10lbs., hens 8lbs. The buffs are very difficult to breed to Show requirements, coloured feathers such as black or white often appearing in neck hackle, wings and tail. The same difficulty confronted the Buff Cochin breeder in the past, but that has been completely overcome, so there should be no insurmountable difficulty in breeding the Buff Wyandotte just as perfect. The one plan, and only one to attain this object, is by selection and preference, mating each year birds the nearest to what is desired.

In breeding the Buffs the cock or cockerel selected should be as even a buff colour throughout as possible, being a trifle darker than the colour required for the Show pen will be a point in his favour rather than otherwise, and if his under-colour is sound and good, fair results may be expected. He should be mated with about four hens, two a trifle darker than the others, as by this means the desired shade of colour may be obtained in at least some of the chickens. The hens should be squarely built, of good size, and as clear, or perfectly clear in neck hackles and tails as possible. There should also be *some* blood relationship between the brood stock in order to get even a moderate percentage of good buff coloured chickens, as it is next to impossible to breed sound coloured buffs from birds totally unrelated. In breeding for head points the better the combs are on the stock birds the better the chickens will turn out in this important characteristic, and again if a faulty combed bird is used on the cock's side especially, the fault is almost certain to be aggravated. Care must be exercised in mating the stock, avoiding birds on either side which have a reddish tendency in plumage, or which run mealy on the wings or whitish in the under-colour of the feather. Another fault to be avoided in selecting the stock cock is white in the sickles; if this is present even in a small degree as a cockerel, as a cock he will have three parts or wholly white sickles, and a bird with this marked defect would fail to breed a single good pullet.

The Cuckoo Wyandotte is the latest variety of the tribe to make its appearance, being produced in England within the past few years. There is little doubt that the Barred Plymouth Rock was the prime factor in the composition, and as most strains of Rocks are somewhat similar in conformation, and the colour of beak, eyes and legs, the same as the Wyandotte; markings and colour of plumage were not difficult to secure, and we now have a fowl possessing all the desired Wyandotte characteristics, with the beautiful barred plumage of the Plymouth Rock. Great claims are made on behalf of the Cuckoos for their economic qualities, and this is not to be wondered at, as the infusion of such distinct blood must of necessity increase fecundity. The Cuckoos have evidently "come to stay," though we utterly fail to see the reason of increasing the varieties in a recognised utility breed.

To breed the Cuckoo variety for the show pen—bearing in mind the difference existing in the head points between the single-combed and pea-combed Plymouth Rock and the rose-combed Wyandotte, and also the slight difference in type—the instructions given on the mating and breeding of Barred Plymouth Rocks, will be found an absolute guide to success in obtaining colour and markings in the Cuckoo Wyandotte.

For the following notes on the Laced varieties we are indebted to Mr. Oscar Wilson, of the Bonaventure Poultry Farm, Mount Druitt, N.S.W. Mr. Wilson writes:—

"It is now ten years since I started breeding Silver-laced Wyandottes, they were quite a new breed in N.S.W. at that time—being in the hands of one or two Fanciers only. I was fortunate in securing a trio from a friend who had imported some direct from the yards of Mr. Preston, one of America's largest breeders,

and again in 1890 received as a present from T. K. Ryder, Esq., of Rooty Hill, a pair of splendid hens—these were bred from a trio imported by that gentleman from America. From these two strains I bred a long list of winners, and laid the foundation of my present strain. They were given an excellent character as an all round general purpose fowl, and from my experience gained with them they fully upheld their claim. For some years the breed did not make much headway, owing to the Plymouth Rock, Langshan, and Orpington boom, which was then at its height, but they have gradually forced their way to the van by sheer force of merit, until now, at the time of writing, there is not a more popular utility breed of Poultry in Australia. The Golden-laced variety did not make their appearance in N.S.W. until 1889 or 1890, and the Whites in 1893. The Golden became popular from the first, and for the past four years they have been in great demand. As a general purpose Fowl the Wyandotte is an easy first, as an egg-producer the hens have no equal amongst the sitting varieties, early hatched pullets will continue laying right through the winter months. The chickens, up to the age of three months, are the quickest growers of any breed I have handled; the chicks are very hardy, and it is rare to see a sick Wyandotte chicken, and a treat to watch them foraging around in the orchard, discovering and consuming many of the insect pests which trouble the fruit-grower. I have found the hens such careful and reliable sitters and mothers, that I discard all other hens for this purpose, relying entirely on the Wyandottes. One fault I find with them is their determination to lay so quickly after hatching. I have had the hens laying two weeks after hatching their broods. They are specially adapted as a Farmer's Fowl, especially for the warmer parts of the colonies. They stand excessive heat much better than any other breed I know of, and I am sure there is a splendid future in front of the breed when they become better known. I have already stocked several farms with them, and all speak well of their great merits. For crossing, they "nick" well with any breed, but the best crosses are with a Dorking or Malay Cock, using the Wyandotte hens. I have also crossed them with Rocks, Brahmas, and Red Caps, the latter cross giving a capital layer, and the best of Table Fowls, possessing the delicate flavour of the Red Cap's flesh, while they gain increased size from the Wyandottes. I can strongly recommend this cross to those who require a good layer and a high-class table bird combined in the one fowl.

"Wyandottes, are, in my opinion, the most handsome breed we have, although I suppose some of our Game Fanciers will not agree with me on this head. They are, however, most difficult to breed to standard markings, it is only once in a while we see a really good specimen, even at our largest shows, spangled breasts, sooty hackles, Hamburg combs, white in lobes and tail being very much in evidence. There is much room for improvement in the judging of this breed and the sooner efficient judges are appointed, the more satisfactory it will be for Wyandotte breeders. The main feature in the Silver and Gold is the beautiful lacing found in good specimens—but how rarely one meets with a well-laced bird. If they are good in breast lacing they usually run mossy and indistinct on back and cushion. Lately, many breeders are showing birds with the white centres to the feathers far too large, in fact as fine in the lacing as the Sebright Bantam, and so long as this fine lacing is fostered, the natural outcome is mossy backs, bad breasts, and light fluff. The American Standard states medium white centres, the lacing around each feather to be clear and distinct, and as the Wyandotte is solely an American production we should be guided to a great extent by their Standard of perfection, drawn up by those who should and ought to know the Wyandotte."

The following remarks are also added on this utility breed by Mr. L. L. Ramsay, Lyons Road Five Dock, N.S.W., who states:—

"I have kept and bred three varieties of the Wyandotte family, viz., Whites, Silver-laced, and Golden-laced, and the three have proved that they are right-worthy of a high position amongst our general purpose Poultry, being tip-top layers summer and winter, and good table birds. The hens make excellent mothers, the chicks are very hardy, easily reared, and mature early. Any of the varieties do well confined in small pens, but, of course, do better when they have plenty of range. Recently, the Whites have jumped to the front and will ere long be the most popular; Goldens next, then the Silvers. The most difficult point to attain in breeding Laced Wyandottes is to obtain the correct markings with fair size of frame and good shape; many of the birds exhibited at our large shows are very small, and unless some enterprising breeder imports a new strain, the varieties will degenerate to Bantam size."



Golden Laced Wyandottes.

Bred by and the property of the Bonaventure Poultry Farm, Mount Druitt, N.S.W.
COCK.—"Stenation."

The following notes are kindly supplied by Mr. Hugh Dunlop, of Ewell-street, Balmain, N.S.W. This gentleman states:—

“I have kept and bred many varieties of Pure-bred Poultry, but some time during the eighties hearing so much about the good qualities of Wyandottes, and the name having an attractive sound, led me to invest in some of the Silver variety, which I kept and bred for some years, and being so fully impressed with their practical qualities as layers and table fowls determined to obtain fresh blood; fancying the Golden variety, I placed an order for a pair of Golden in the hands of an old Shipmate, he travelling to and from Sydney to San Francisco, California: on his return I received the birds, and herewith, as a guidance to those who at any time would like to obtain fresh blood, append a copy of the receipt:—

MR. R. MIKKLISON.

Bought of P. PERRINE & Co.,

Breeders, Importers, and Exhibitors of Thoroughbred Poultry and Pet Stock,

Alameda, California.

1 pair Golden Wyandottes	...	...	...	...	...	...	...	...	\$30.00
1 double Cage	...	...	...	...	...	...	...	...	\$2.50
Expenses	...	...	...	...	...	...	...	...	.50
									—
									\$33.00
Freight, approximately, \$3.00 per bird	..	...	...	...	...	...	...	...	\$6.00
									—
									\$39.00

Since receiving this pair I have kept Golden Wyandottes only. It would be difficult for me to add one word to what has been so ably written from time to time about these birds, except, to state that after nearly ten years' experience, I have found that as an all-round breed to be kept in confinement they are second to none. The hens as layers stand out prominently amongst the improved breeds, and are the best of sitters and most attentive of mothers. The cocks even when kept in confinement are extremely active and vigorous. The Golden variety breed very true to feather and type with fewer culls amongst the chickens than any breed I know of, and they are powerfully chested and broad of back without being coarse either in bone or flesh, which makes them an excellent variety for the table. They are tame and docile in temperament, and admirably suited to those who have a small area at their disposal for Poultry, and at the same time for the small amount of food they consume, and the trifling attention they require, are a breed of many virtues.”

SCHEDULE FOR JUDGING WYANDOTTES.

GENERAL CHARACTERISTICS.

THE COCK.

Head, short and broad; *Comb*, rose, firm, and well set on the head, full of fine work, or spikes, low and square at front, tapering towards the spike, which should follow the curve of the neck; *Ear-lobes and Wattles*, fair length, fine in texture; *Neck*, medium length, well arched, and covered with long flowing hackle feathers; *Breast*, full and round, breast bone perfectly straight; *Back*, broad and short; *Saddle*, full and broad, rising with a nice sweep to the tail; *Tail*, well developed and well spread, carried rather upright, Sickles, medium in length; *Wings*, medium in size, well folded, and carried neatly tucked up; *Fluff*, full and abundant; *Legs*, thighs of medium length, well covered with soft feathers; *Shanks*, medium in length, strong, but fine in bone; *Toes*, straight, and well spread; *Weight*, cockerels, 7 lbs., cocks, 9 lbs.; *General Shape and Carriage*, somewhat similar to the Brahma, upright and graceful, and well balanced.

THE HEN.

The hen should resemble the cock in comb, head, ear-lobe, wattles, fluff, legs, and feet, making allowance for difference in sex.

Neck, medium length, covered with short full hackle feathers; *Breast*, full and round, breast bone perfectly straight; *Back*, short, and wide at shoulder; *Tail*, well spread; *Wings*, medium in size, carried closely to the body; *Weight*, pullets 5 lbs., hens 7 lbs.; *General Shape and Carriage*, graceful, active, and very compact.

POINTS OF COLOUR IN SILVER LACED WYANDOTTES.

Comb, Face, Ear-lobes, and Wattles.—Rich bright red.

Head and Neck Hackle.—Pure silvery white margin, with black streak in the centre.

Beak.—Light horn colour, tipped with yellow.

Eyes.—Bright bay.

Breast.—Plumage, the web of the feathers white, with deep black lacing around each and every feather from throat to thighs, the lacing having a greenish lustre.

Back.—Silvery white.

Saddle Hackles.—Pure silvery white margin, with black streak in the centre.

Tail.—True tail feathers black, sickles and secondary sickles black, with a greenish lustre.

Wing-bow.—Silvery white.

Shoulder Tips.—White laced, with black.

Wing-coverts.—Heavily laced with black, forming two well defined bars.

Wing secondaries.—Black on the inner web, wide white lacing on the outer web.

Wing primaries.—Black on the inner and broadly laced with white on the outer web.

Fluff.—Black or dark slate, powdered with dark grey.

Legs and Feet.—Bright yellow or orange.

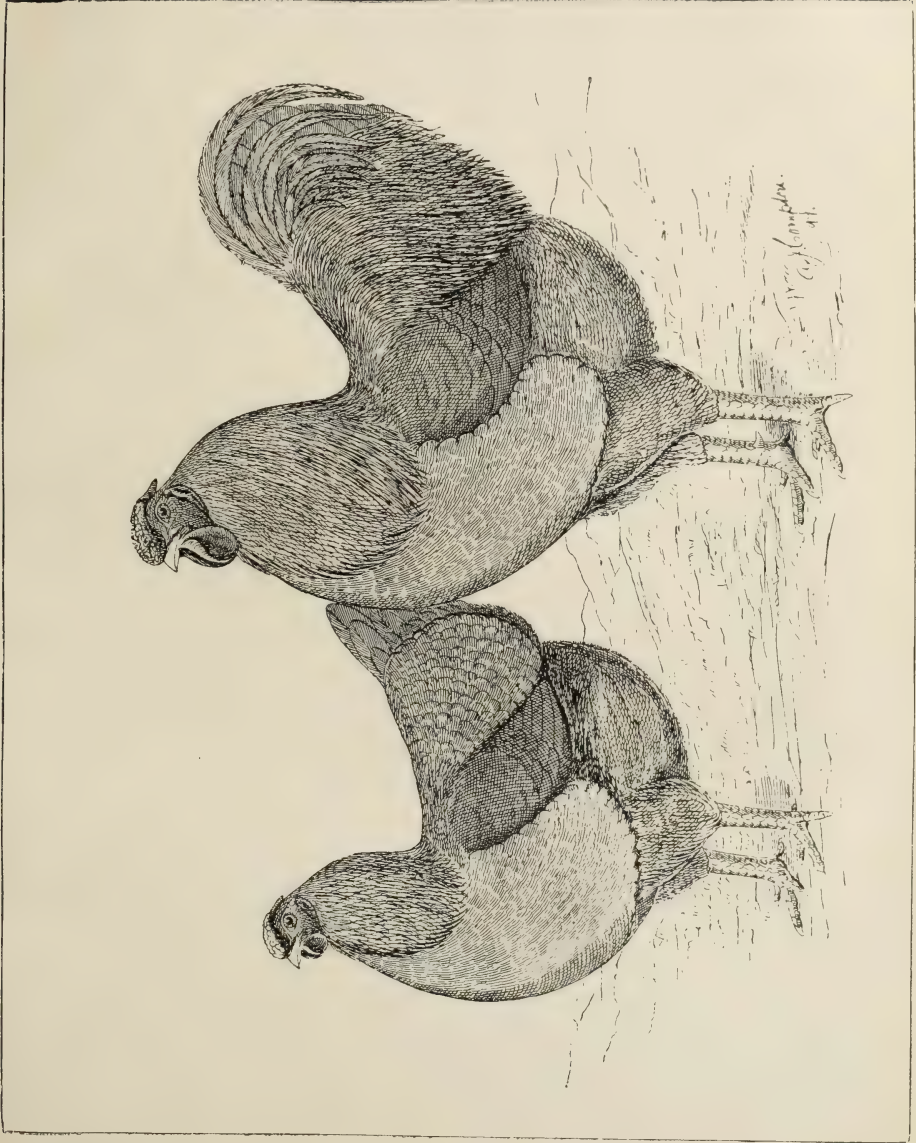
The hen to match should resemble the cock exactly in markings, making allowance for difference in sex, the neck hackle feathers being shorter, and the cushion corresponding to the cock's saddle hackles being marked similarly to the breast.

The points of colour in Golden Laced Wyandottes are identical with the Silvers, substituting for the Silver ground colour a rich golden bay.

A bird perfect in shape, size, style, colour, markings, head points, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS IN SILVER AND GOLDEN LACED WYANDOTTES.

Badly shaped comb	8
Bad head	6
Faulty ear-lobes	8
Too long or too short neck	6
Deficiency of breast lacing... .. .	10
Badly shaped body... .. .	10
Badly carried tail	5
Deficiency of lacing on wings	6
Wings badly carried	4
Deficiency of under-colour in fluff	6
Bad legs and feet	6
Want of symmetry	10
„ size	5
„ condition	10



Buff Wyandottes.

DISQUALIFICATIONS.

Any feathers on shanks or toes, crooked back, crooked breast, wry tail, or any other evident sign of weakness or deformity, white or yellow in ear-lobes, combs other than rose, or falling over to one side, or so large as to obstruct the sight, shanks any other colour than yellow, white in tail or any spotting or peppering of black on the ground colour, any fraudulent dyeing, dressing, or trimming.

POINTS OF COLOUR IN WHITE WYANDOTTES.

In both sexes the whole plumage should be pure spotless white throughout.

A bird perfect in shape, size, style, colour, head points, legs and feet, and in perfect health and condition to count 100 points.

POINTS OF COLOUR IN BLACK WYANDOTTES.

In both sexes the whole plumage should be metallic black throughout.

A bird perfect in shape, size, style, colour, head points, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

IN WHITE AND BLACK WYANDOTTES.

Badly shaped comb	...	...	...	...	...	...	...	...	...	10
Bad head	...	...	...	...	...	...	...	...	...	5
Faulty ear-lobes	...	...	...	...	...	...	...	...	...	10
Too long or too short neck	...	...	...	...	...	...	...	...	...	10
Deficiency of breast	...	...	...	...	...	...	...	...	...	10
Badly shaped body...	...	...	...	...	...	...	...	...	...	10
Wings badly carried	...	...	...	...	...	...	...	...	...	5
Tail	„	„	...	...	...	...	...	...	...	5
Bad legs and feet	...	...	...	...	...	...	...	...	...	10
Want of Symmetry	„	...	...	...	...	...	...	...	...	10
„ „ Size	...	...	...	...	...	...	...	...	...	5
„ „ Condition	...	...	...	...	...	...	...	...	...	10

—
100

DISQUALIFICATIONS.

Any feathers on shanks or toes, crooked back, crooked breast, wry tail, white or yellow in ear-lobes, comb other than rose, or falling over to one side, or so large as to obstruct the sight, deformed beak, legs any other colour than yellow, any other coloured feathers than white in the white, or any other coloured feathers than black in the black variety; any fraudulent dyeing, dressing, or trimming.

POINTS OF COLOUR IN BUFF WYANDOTTES.

In Both Sexes.—*Comb, Face, Ear-lobes, and Wattles*, rich bright red; *Eyes*, bright bay; *Shanks and Feet*, bright yellow; *Colour of the Cock*, any shade of buff, ranging from rich lemon to bright orange, the colour to be uniform throughout, evenness of colour being more important than any particular shade; *Tail*, clear rich buff, chestnut, or bronze; *Under-Colour*, a trifle lighter in shade than the surface colour, but not approaching mealiness; *Colour of the Hen*, any shade of buff, ranging from rich lemon to orange, perfectly free from lacing or ticking on the hackle; *Tail*, buff, of same shade as the body colour; *Under-Colour*, a trifle lighter in shade than the surface colour, but not approaching mealiness.

A bird perfect in shape, size, style, colour, head points, legs and feet, and in perfect health and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Badly shaped comb	...	...	...	...	...	...	...	...	...	5
Bad head	...	...	...	...	...	...	...	...	...	5
Faulty ear-lobes	...	...	...	...	...	...	...	...	...	5
Too long or too short neck	...	...	...	...	...	...	...	...	...	5
Deficiency of breast	...	...	...	...	...	...	...	...	...	10
Badly shaped body...	...	...	...	...	...	...	...	...	...	10
Wings badly carried	...	...	...	...	...	...	...	...	...	5
Tail	..	..	...	...	...	...	...	...	...	5
Bad legs and feet	...	...	...	...	...	...	...	...	...	5
Want of Colour	...	...	...	...	...	...	...	...	...	20
.. .. Symmetry	...	...	...	...	...	...	...	...	...	10
.. .. Size	...	...	...	...	...	...	...	...	...	5
.. .. Condition	...	...	...	...	...	...	...	...	...	10

100

DISQUALIFICATIONS.

Any feathers on shanks or toes, crooked back, crooked breast, wry tail, white or yellow in ear-lobes, comb other than rose, or falling over to one side, or so large as to obstruct the sight, deformed beak, legs any other colour than yellow, any fraudulent dyeing, dressing, or trimming.

To the kindness of Mr. H. Huntington Peck, the Hon. Sec. of the Victorian P-R.L.W. and O. Club we are enabled to publish the following Standard issued by the Club for judging Wyandottes:—

STANDARD FOR JUDGING SILVER-LACED WYANDOTTES.

GENERAL CHARACTERISTICS.

COCK.

Head.—General appearance resembling that of the Brahma of the fine-headed type, short and broad; *Beak*, nicely curved; *Comb*, rose, but narrow and low, surface evenly and uniformly studded with small points, spike behind much less than in Hamburgs, and rather curving down behind to match the curve of the head itself; *Wattles*, medium; *Ear-lobes*, well developed; *Neck*, rather short, with a good sweep and full flow of hackle on to the shoulders; *Body*, general appearance short, broad, and very plump, shoulder and saddle both broad, and short concave sweep to the tail; *Breast*, full and round, more than most varieties; *Whole Body*, deep through; *Wings*, medium and closely folded; *Tail*, medium, well spread, and well carried up, but flowing, and in no degree squirrel fashion; *Legs and Feet*, thighs short, fairly furnished with fluff; shanks, rather short and pretty stout, toes well spread; *Carriage*, very graceful, looking well balanced; *Average Weight*, cock 8½lbs., cockerel 7½lbs.

HEN.

In general same as those of the cock, with usual sexual differences. *Cushion and Fluff* generally rather more prominent in proportion; *Carriage*, very neat and matronly; *Average Weight*, hen 7lbs., pullet 5lbs.

COLOUR OF SILVER-LACED WYANDOTTES.

In Both Sexes.—*Beak*, horn tipped with yellow, or yellow streaked with horn; *Comb*, *Face*, *Deaf-ears*, and *Wattles*, bright red; *Eyes*, bright bay; *Shanks*, bright yellow.

Colour of Cock.—*Head*, white; *Neck and Saddle Hackle*, white with black stripes, coming to a sharp point; *Breast*, very heavily laced, or may be described as black with a white centre to each feather, going off to a point or egg-end tip at the outer end. *Back*, silvery grey; *Wings*, primaries black on inner and laced with white on outer edge; secondaries, black on inner and a wide white lacing on outer web; coverts, heavily laced, or so marked as to produce two well-defined laced bars across the wing; wing-bows

and shoulder-coverts laced with white. *Tail and Tail Coverts*, glossy black; lesser coverts laced with white. The *Thighs* should be laced with black well over them, and fluff behind dark slate, powdered with grey; white objectionable. *Under-Fluff* or *Under-Colour*, slaty grey or slate.

Colour of Hen.—*Head*, grey; *Hackle*, white, with broad black stripe; *Tail*, black, coverts with small white centres. *Wings*, primaries black, with lower edge laced with white; secondaries, black on inner web, outer web broadly laced with white on under edge. *Body*, white, laced all over with dense black as evenly as possible, but the back and cushion are more heavily laced than the breast, more resembling the marking described for the breast of the cock. Lacing to go well over the thighs; hinder fluff, dark slate, powdered with grey. Light fluff objectionable, but not a disqualification.

COLOUR OF GOLDEN WYANDOTTES.

(Association's Standard).

Same as above, substituting a rich Golden ground (as in the Golden-spangled Hamburg), for the Silver.

VALUE OF DEFECTS IN JUDGING.

STANDARD OF PERFECTION.

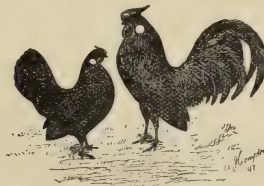
A bird perfect in shape, style, colour, etc., and in perfect health and condition, to count in points 100.

DEFECTS TO BE DEDUCTED.

Bad comb	12	Faults in tail (other than below) ...	4
White or yellow in ear-lobe	6	Pale or sooty shanks	8
Faults in hackle	8	Want of symmetry (especially of	
Bad marking, breast and body	12	breast)	25
" " on back	8	Want of size	15
" " on fluff	5	" " condition... ..	15

DISQUALIFICATIONS.

Comb otherwise than rose, conspicuous spotting or peppering on ground of feather, feather on shanks, whole white or yellow ear-lobes, wry tails or any other bodily deformity, any fraudulent dyeing, dressing, or trimming, any sickle tail feather missing.



CHAPTER XXVIII.

MODERN BRITISH GAME.

THE Modern British Game Fowl, when seen in anything approaching perfection, has a most aristocratic appearance—reach, style, and proportion, with the brightest and most lustrous plumage, forming a combination difficult to surpass. The highest class specimens, as seen in the Show pen, are most noble looking birds, full of activity, gracefulness, and courage, and when in high condition have an extraordinary lustre on their plumage, unsurpassed, or even equalled, by any variety of domestic Poultry, and when well trained they show themselves off to advantage, having such a graceful action and noble carriage. They are tamer in disposition than most other varieties, and possess excellent qualifications for the table, carrying less offal and more breast meat in proportion to their size than the majority of other Fowls.

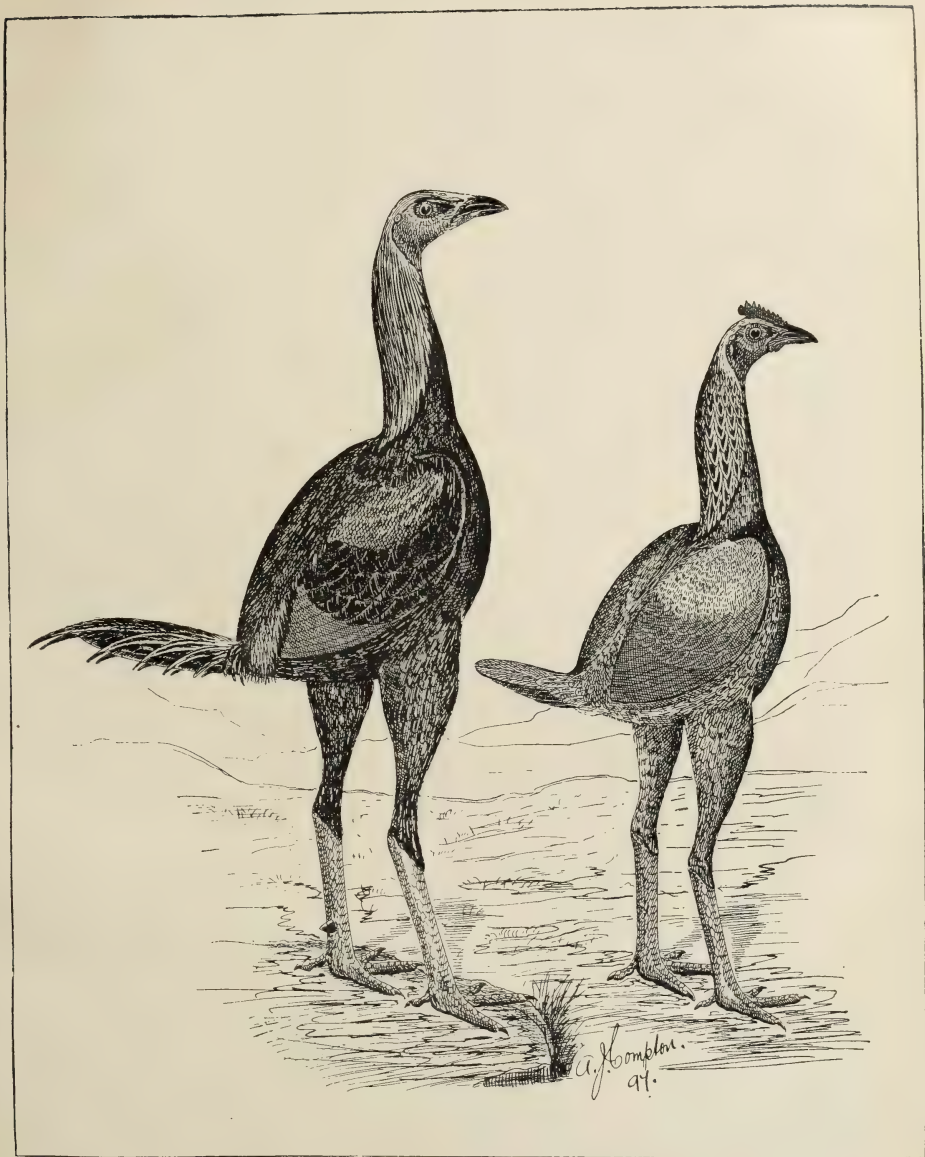
During the past half-century the Game Fowl has undergone a complete transformation in shape and style. In the forties they were bred solely for the pit, and curious-looking specimens some of them were. Within our own knowledge, covering a quarter of a century, the change has been most marked. Twenty years ago we kept and bred Black-breasted Red-Muffs, Spangles, Blacks, Cuckoos, and Hennies, and a grand stamp of Fowl they were, full of quality and activity, and *Game to the death*. With the exception of the Black-breasted Muffs, they were mid-way between the present Modern Show type and the old-fashioned stamp of British Game. The Muffs were a much reachier, longer-headed, finer, and narrower-feathered breed, somewhat approaching the present Show Game, though not quite so lengthy in thigh or as short in feather.

We recall with pleasure the good feeling that existed among Game Fanciers of those days, when Shows were an almost unknown quantity; and many pleasant Sunday afternoons have we spent inspecting and criticising other Fanciers' birds, which, without exception, was always accepted in the spirit in which it was intended. Alas! vastly different to the feeling engendered nowadays, if one offers a remark at all disparaging to another *Exhibitor's* birds.

When Poultry Shows became general the ranks of breeders were considerably augmented, and this quickly led to a change in the appearance of the birds exhibited, but it was not until the eighties that the class of Fowl known as the Modern British Game made their appearance in the Colonies.

They are now bred to such perfection in style, reach, and colour—both sexes, in all varieties—that it is almost marvellous what skill and perseverance will accomplish towards attaining an ideal.

The breed did not arrive at its present state of perfection all at once. In Great Britain it was about the sixties that the change of type became markedly noticeable, and it was about that time that some of the finest specimens ever seen were produced, grand-bodied, stylish, reachy, shapely, close, hard-feathered birds being bred in that decade. The birds of that time were powerful in head and beak, fiery in eye, medium in length of limb, with plenty of muscular development; the thighs set on at a nice angle, that is, carried along the body a little, not stilty, as now too often seen in the Show specimen. The Brown-Reds were about the finest variety, such fine big, strapping fellows they were, and very powerful in limb; sad to say, there are none now to equal them. The Black-breasted Light-Reds, Duckwings, and Piles also began to exhibit the modernising influence in a pronounced degree. Among the breeders in Great Britain who assisted to bring about this great change, the names of Messrs. Ward, Brierley, Douglas, Fielding, Martin, Burgess, the brothers Challoner, Entwistle, Woods, Matthews, etc., stand foremost. During the seventies the increase in length of head, neck, thigh, and shank became general, said to be obtained by crossing with the Malay; this is, however, denied by others. Anyhow, that matters little; but at that time *the unmistakable trade marks of the Malay* were only too frequently evident in the shape of *coarse heads, coarse skin* of face and throat,



Modern Black-Breasted Red British Game.

The property of Mr. G. C. Murdoch, Bahmain, N.S.W.

COCK—"Lord Gaylemire."

HEN—"Lady Gaylemire,"

Both winners of numerous prizes at Intercolonial Shows,

heavy brows, hollow eyes (pale in colour), *flat shins, short wiry-feather*, and both sexes having a tendency to carry their wings goose-fashion. Many of these grave faults are now "bred out," though occasionally one or other is present in some otherwise good specimens at our best Shows.

The present type of the high-class Modern Game Fowl dates distinctly from the seventies; but prior to that date birds somewhat of their type were known as Yorkshire Whip-tails. The Judges of the time were principally instrumental in bringing about the change, favouring the long lean head, long tapered neck, short close-fitting hackle, broad prominent shoulders, short wings, narrow fine sickle feathers, small low-set tail, carried close together, and extreme length of limb.

In colour, the black-breasted red cocks were lighter and brighter in top-colour, but this brought with it faulty markings on the knee joints, ticked or laced breasts, and rusty markings behind the thighs. These faults are too often prominent in some of the most stylish Show birds of to-day. The hens are too often exhibited with rusty markings on sides of wings, pale in breast, and shafty all over—*faults that should not be tolerated in a Show specimen.*

The Brown-Reds have undergone the greatest change in colour and markings. The cocks must now have Gipsy faces, black eyes, beaks, and legs; the neck hackles and saddle hackles of a lemon shade, streaked with brilliant black in the centre of each feather; the back and wing-bows, a shade darker lemon; the breast, lightly and evenly laced, each feather having a lemon shaft and margin; the rest of the body, tail, and wings, a bright, lustrous greenish-black. The hens similar to the cocks in face, eyes, beak, and legs; their hackles, black and gold, or lemon; the rest of their plumage, a lustrous greenish-black. Faults that are mostly found in the Brown-Red cocks are red faces, pale eyes, streaky breasts, and, *worst of all, pencilled secondaries*—birds that, in a Brown Red breeder's eyes, are absolutely worthless. In the hens we have frequently seen birds winning prizes with scarcely a sound coloured feather in their bodies, being pencilled or laced all over with a dull brown. This presents a shabby appearance, not at all pleasing to the eye. Hens of this description should never get even a commended card as Brown-Reds.

The Duckwings and Piles are sometimes shown in great perfection, though cocks of the former mostly exhibit rather too much Black-Red blood, in the shape of stained wing secondaries, and streaks in hackle and saddle, the hens also showing a brownish cap on the head, and rusty on the sides of the wings. The Pile cocks also show marbling on breast, and black ticks on wing-bar, and sometimes a black, or partly black feather in tail sickle and true tail, the hens showing too much rusty markings on sides of wings. These are faults that may be remedied by careful mating of the Stock birds.

At the same time, many specimens of the different colours exhibited at our leading Poultry Exhibitions are wonderfully perfect in shape, style, and feather markings, and it is an almost hopeless task for a beginner to expect to beat the birds penned by the leading breeders, unless he starts with stock from the very best strains, which means the expenditure of a large amount of solid cash.

To Mr. C. W. Pattison, of Leichhardt, N.S.W., a most successful breeder and exhibitor of the variety, we are indebted for the following notes. Mr. Pattison writes:

"Modern Show British Game are bred in quite a variety of colours—the Black-Red, Brown-Red, Red-Pile, and Golden-Duckwing, in the order named, being the standard colours; but there are sub-varieties of the breed - viz., the Silver-Grey Birchen, Silver-Grey Duckwing, Lemon-Piles, and also strains of Blacks and Whites, though the latter are seldom seen.

"With all breeders and judges of Show Game, style is considered to be of the greatest importance, so much so, that a bird of great merit in other points, and wanting style, is generally discarded. By style, I mean carriage and action, which should be upright, tall, racy, and smart. The bird's head should be long, lean, and narrow, forming, with the neck, a graceful curve, not rising or indented at the back; the neck itself long and slender, with close-fitting hackle (the hackle feathers cannot be too narrow and close fitting), thus adding to the apparent length and slenderness of neck, and which tends to bring the shoulders out to much greater advantage. The shoulders require to be well carried forward, and prominent, broad and square, the back flat and short, finishing off to a fine, narrow stern; the chest broad, but not too full, or turkey-

breasted; the thighs well-developed, and very muscular; the legs well coupled—that is, set wide apart, and rather prominent; the shanks long, round, straight, and strong, not flat-shinned, or square, as this is an evident sign of weakness; the legs beautifully and evenly scaled, and the scales to fit close like mail; the feet and toes straight and sound, and well spread out on the ground; the hind toe a good length, set low on the ground, and exactly opposite the middle toe. If the hind toe is too short, or pointing forwards, the bird is duck-footed—a great disfigurement, and, if very bad, a disqualification for the Show pen. The breast should be firm on handling, the sides of the body of concave form, the wings short, deep, and well curved, fitting closely to the body, not carried over the back. The tail must be small, closed up, and carried at a slight elevation, a good whip tail being desired in both cock and hen. The cock's sickle feathers should be fine, narrow, and short; the eyes should be large, bold, fiery, and prominent, and of a bright red colour, with the exception of Brown-Reds and Birchengs, whose eyes should be as dark as possible; the skin of face and throat should be of fine texture, and the comb should be small, neat, thin, well serrated, erect, and perfectly straight; the ear-lobes should be small, and quite free from white.

“In describing colour, I will take the *Black-Red* first. A cock of this colour should be the brightest red in face, throat, lobes, and top of head; beak, dark horn colour; the eyes clear, full, rich bright red (not brown, yellow, or pearly); neck hackle, bright light orange red to the points; the back and shoulder coverts, bright crimson; the saddle hackle, light orange to match the neck; the wing-butts should be black; the back, wing-bows, and shoulder-coverts, crimson; wing-bars, steel-blue; flight-coverts, clear bay or chestnut; breast and thighs, blue-black; belly, black, free from rusty, mossy, or brown feathers; tail, glossy blue-black; legs and feet, willow or olive.

“A cock of this colour will breed cockerels like himself, though his pullets are almost certain to come with foxy or rusty markings on the wings, and too pale in breast for the Show pen, but these same pullets are of great value for breeding bright-coloured cockerels from.

“To breed *Black-Red* pullets for exhibition it is better to use a cock which is a more uniform shade of red or orange throughout, though this colour would have little chance of winning in the Show pen unless a poor lot were exhibited.

“The *Show Black-Red* hen should match the cock in colour of eyes, beak, legs, and feet, and be perfectly red in face, wattles, ear-lobes, and comb. The head feathers should be golden. The neck hackle feathers should have well-defined black stripes each side of the shaft, the margin or edge of the feathers all round being of a bright golden colour. The back and wings and outer feathers of tail should be of one even shade, a light brownish drab, each feather being minutely and evenly pencilled all over with black. This gives a plain brown appearance a few yards distant. Coarse pencilling, or any red, foxy, rusty, or shafty feathers are very objectionable (though hens of this latter description are generally more stylish, and harder-feathered than the Standard Coloured hens; they are, in fact, the cockerel strain of *Black-Reds*). The tail should be black, but the outer top feathers should be brown, pencilled the same as the body colour; the throat should be a light salmon colour; the breast, a bright salmon red, the shafts of the feathers being a shade lighter in colour, and the breast colour gradually running off to a grey or ashy shade on the thighs and under-parts. This is the recognised Standard colour of the Show hen, and a hen of this description will breed correct coloured cockerels if mated to a bird which is perfectly sound and bright in colour.

“The *Brown-Red* cock should have a dark gipsy or purplish face (the darker the better), eyes as black as possible, wattles dark red, beak the blackest horn colour, the legs, feet, and toe-nails the darkest bronze (the darker the better), head and neck hackles lemon or bright orange, striped with black, each feather having a lemon or orange margin and shaft; back, wing-bows, and shoulder-coverts lemon or orange, rich and bright in colour; saddle hackles the same colour, striped with black (the accuracy with which good birds are marked is astonishing); breast rich black, each feather having lemon or orange coloured shaft and margin. The lacing may come down on to the thighs; the rest of the plumage should be as lustrous and bright a green-black as possible, excepting the under-feather, which should be a duller black.



Laced-Breasted Modern Brown-Red British Game.

Bred by and the property of Mr. A. J. Compton, Leichhardt, Sydney, N.S.W.

COCK—"Lord Beverley IX."

Winner of 1st and Special N.S.W. P.P.C. and D. Soc. .. 1895
 " 1st Royal, and N.S.W. P.P.C. and D. Soc. Shows .. 1896
 " 1st Essendon, Victoria, and S.A. P. Soc., Adelaide .. 1897

HEN—"Lady Beverley."

Winner of 1st Royal, and N.S.W. P.P.C. and D. Soc. Shows .. 1895
 " 1st Essendon P. Soc., Victoria 1896

"The *Brown-Red* Hen must have the darkest of gipsy faces, comb, ear-lobes, and wattles, the darkest of eyes (the nearer they are, or quite black, the better), and should match the cock in beak, legs, and feet. Her neck hackle should be straw colour or pale gold, with narrow black stripes each side of the shaft of the feather. The golden colour should go right over the head; the breast should be nicely and evenly laced with pale straw or light gold, *the rest of the body feathers and tail the brightest and soundest green-black, without mark or streak.*

"Standard coloured Brown-Reds such as described *breed exceptionally true to feather.* Occasionally one or two pullets will be produced which are laced on the back and shoulder coverts. These can be relied upon to produce the brightest and soundest-coloured cockerels if mated to a Standard Coloured cock. Another excellent plan to produce cockerels of a nice even lemon shade throughout is to cross with a sound-coloured Birchen, though with this cross there is certain to be a majority of Birchen pullets produced.

"Pullets for the Show pen can be bred from hens that are too dark in hackle and wanting breast lacing, providing the cock or cockerel mated with them is a *bright green black* in flight coverts and tail, and fairly well laced on breast.

"The *Golden-Duckwing* Cock should be the brightest red in face, eyes, throat, ear-lobes, and top of head; neck hackles clear creamy white, quite free from dark stripes or markings; the back, wing-bows, and shoulder-coverts the brightest shade of orange or golden yellow; the saddle hackles shading off to a straw colour or nearly white; wing-butts, breast, and thighs a perfectly sound blue-black, not mealy or mossy; belly black, free from coloured feathers; wing-bars, bright lustrous steel-blue; flight coverts white, free from rustiness, the tip of each feather having a metallic blue-black end, the wings when closed having the appearance on the top side of a blue-black stripe, and the more defined this point is the better. The tail and sickle feathers should be a sound blue-black, quite free from any markings; the legs, bright olive or willow green.

"The *Duckwing Hen* should match the cock in eyes, beak, face, legs, and feet. Her breast should be a bright salmon red, shading off to an ashy grey on thighs and belly, and should be evenly pencilled with minute markings of black on a French grey or pale slate-coloured ground; the head feathers white; the neck hackle white shaft and margin, each side of the shafts having a black stripe; the tail coverts and top outer feathers of tail same as the body colour; the true tail black. To breed bright-coloured golden-backed cockerels, I find the best plan is to use a very bright-coloured Black-Red cock, clear as possible in hackle, and mate him with Standard Coloured Duckwing hens. The pullets from this cross will mostly turn out Black-Reds, and perhaps an occasional wheaten or rusty-winged Duckwing will be produced. These latter are invaluable for breeding, and will produce the brightest coloured Golden-Duckwing cockerels if mated with a Standard Coloured Duckwing cock.

"To breed pullets, I use a Silver Duckwing cock with Standard hens. The pullets from this system of mating will come very true, the cockerels, however, mostly turning out Silvers, being useful again for pullet breeding.

"*Red-Piles* should have red faces and eyes, and for the Show pen yellow beaks and legs, though willow-legged pullets are not to be despised for the breeding pen if mated with a cock having yellow legs. In colour the Red-Pile cock should be white where a Black-Red cock is black, and red where he is red—the clearer and more distinct in markings the better. The Pile hen's hackle should have a gold margin all round the feather, the brighter the better, the feather having a white stripe in the centre. The breast should be a bright salmon-red, shading off to a creamy-white on thighs and belly. Her back wings and tail should be a clear creamy-white. I breed my Pile cockerels in two ways; first, by using a sound, bright-coloured Black-Red cock mated with a lemon-Pile hen, yellow-legged. The cockerels thus bred are generally the brightest-coloured and hardest-feathered, though the pullets nearly always turn out Black-Reds, being useful again for breeding cockerels if put to a hard-feathered Pile cock. The second plan is to use a sound coloured Pile cockerel mated with hens that are high-coloured, *i.e.*, with foxey or rusty markings on back, wings, and sides. Ofttimes this plan will produce a fair proportion of good cockerels and pullets, though

the cockerels are rarely as hard-feathered as the birds bred from the Black-Red, the pullets generally come all right, though occasionally a lemon pullet will be produced, and is of great use for the first plan of crossing.

"*Birchen-Greys* are exact duplicates of the Brown-Reds in markings, substituting white where the Brown-Reds are lemon or golden. They are a most handsome variety, and breed true to feather if not crossed; but in Australia, not being recognised as a distinct variety, are chiefly used by Brown-Red breeders to produce the light shades of colour so desired in Brown-Reds.

"The Silver, or, more properly speaking, *True Duckwings*, are a most beautiful breed, the cock's hackle, back, wing-bows, shoulder-coverts, saddle hackle, and secondaries being pure white, the rest of the body and tail being of the soundest blue-black. The hens are of a paler colour throughout than the Golden Duckwing hen, and are chiefly used to cross with the Black-Red to produce the Show or Golden-Duckwings.

"I have not seen a fair specimen of Black Game in the Colonies, and the Whites that have been exhibited from time to time were only moderate specimens of the Modern Game Fowl."

To Mr. G. C. Murdoch, of Gaylemire, Balmain, N.S.W., one of the leading breeders and exhibitors of Modern British Game, we are indebted for his experiences of the breed. Mr. Murdoch states:—

"In starting my remarks upon this class of Poultry, which may aptly be termed the 'King of Fowls,' I wish the reader to understand that the knowledge gained by myself has not been culled from English works, but is solely the experience of having kept and bred them for the last fifteen years. It may be of service to those who are beginners to hear my experience, so that they may not make the errors that I did. When I started, I relied upon the persons I purchased my stock from to give me what I was paying for; but I soon found that the quality of my purchases did not come up to even the Standard in those days, either in the Show pen themselves, or in the quality of the chickens that they produced. I then began to attend the leading Shows, to study the quality and points of winning birds, and after becoming satisfied that I knew most of the points of a truly Modern type of Fowl, I cleared my yard, and began afresh; and here let me tell the beginner that to view a plate of Modern Game in a book and the actual living bird itself are two totally different things, and the only way to learn how to judge this class of Fowl is by studying the living specimen, and in order to become a successful Fancier, you must have sufficient knowledge to tell you which of your birds to exhibit. How often you hear it said, 'Oh! had I known the Judge went for that style, I have a bird at home which would have won easily.' This displays a want of knowledge on the exhibitor's part, as the Judges keep as close to the Standard as possible.

"In my opinion, within the last ten years the Modern British Game Fowl has made rapid strides. The class of birds now shown are more of the Modern type, and exhibit all-round marked improvement. The original type of bird shown was, in comparison with a present-day specimen, more like a cart-horse than a race-horse. The Modern Game Fowl of to-day is a blood-looking, racy gentleman, smart and showy, having a long narrow head, long neck, the neck hackle short in feather, and pointed between the shoulders, not extending down the back, or like a spreading frill, but lying close, giving a neat appearance, saddle hackle the same, the body feathers short, the Fowl having a close, hard feeling while held in the hand, nice neat tail carried at a slightly elevated angle from the body, the tail feathers not too long, the sickles finishing off like the fine blade of a penknife, legs well set on, not too far forward, nor yet stilty (which gives the bird an appearance of weakness), but well rounded, with nice round shanks, the whole leg showing plenty of strength, feet well spread, the hind toe standing well out behind the foot, not pointing forward, as often seen. The body should be short (but not so short as to appear dumpy, nor yet long and narrow like a lemonade bottle), with plenty of daylight showing from the thighs to the tail; in other words, showing a sharp, clear line from thighs to vent. The wings should be short, and carried closely along the body, not covering the saddle hackles, the wing-butts standing out rather prominently from the shoulders, giving the bird the appearance of being ready for instant action. Too many birds of the present day, and prize-winners, have a habit of carrying the wing-butts too close to the body, giving them the appearance of being narrow-chested and

long-bodied, and is a great fault. I have given my readers an idea of what a Modern British Game Cock should be to be eligible for the Show pen; but they must not run away with the idea that they are going to produce a bird ideally perfect in style, shape, and colour without giving the attention and observation to the breeding of the chickens, and mating the stock birds, so as to eradicate the faults, and if they can produce a bird, or birds, that can score 75 points out of the 100 in judging by points, they will go close towards winning the best prizes at the leading Shows. A bird such as I have described, no matter what his colour, whether Black-Red, Brown-Red, Red-Pile, Duckwing, Birchen, Black, or White, is the correct stamp of a high-class Modern British Game Cock.

"The Modern Game Hen should have a nice long head, with small, straight, and evenly serrated comb (not, as often seen, hanging over like a Leghorn's), long and reachy in neck, with nice short wings, carried well from shoulder to tail, the wing-butts standing out prominently. The wings not carried across the back (and it may be noted that when a bird carries the wings in this fashion it is nearly always accompanied by a high side or deformity (this latter, in most cases, always being present if the bird is wry-tailed), the tail neat, the feathers carried closely together, having an appearance of neatness. Some hens I have seen that carried their tail so close as to appear as if it was composed of one feather, thighs and shanks well rounded, feet well spread, the hind toes carried well back behind the foot. She should be long in the limb, without being stilty, and the line from between her thighs should be acute to the vent. Her body should be short but not dumpy, neither long nor extra short, but in unison with length of limb and reach. She should carry her tail well out from the body, not erect or over the back, and one quality in breeding cockerels should not be overlooked in the hen—*she should have plenty of bone*. Without this the chickens bred from her are absolutely certain to suffer from leg weakness. The foregoing is my idea of what a Modern British Game Hen should be, no matter what her colour. Further on in this Chapter I will deal with the various colours, but, in order to show the difference in the present Standard for British Game in the Colonies to what it was fifteen years back, compare what I have stated with the following old Standard of British Game Cock: Short head, broad between the eyes, neck hackle long and flowing, eye any shade of colour, thigh and shanks short, tail more like a Dorking than a Game Fowl, sickles broad and long, and abundant; virtually a bird lacking shape or make to recommend it. The Hen same character of head and eyes, tail well spread open, body thick, short in leg, the fowl being dumpy-looking and low-set. There is really no comparison between the highly-bred aristocratic appearance of the Modern Fowl and the old-fashioned and obsolete type of former years.

"It is said by some Fanciers and others that the Modern Game Fowl lacks the pluck and stamina which the old style of fowl possessed in such marked degree, but my experience is that the modern production is equally as good in these respects; and, to convince sceptics that the present class of fowl possesses these qualifications, I have a few birds now in my yard which will not only attack their own kind and fight to the death, but will, if irritated or aroused, tackle mankind. An instance occurred quite recently in which a Pile cock of my own breeding was in a pen in company with a hen, which my partner, Mr. Miller, wished to change to another pen, and for this purpose entered the pen, with the result that a battle royal ensued between the Pile cock and Mr. Miller, with the result that the bird fought so desperately that he succumbed shortly afterwards. This is only one instance. I could name many in which I have figured as one of the combatants, and not always as conqueror. My experience is that the Modern Game is in no way inferior in pluck and fighting capabilities to the old class of fowl bred specially for the purpose.

"Game Fowls, like all Poultry, suffer from diseases; but the worst of these, and which is dreaded by all Game Fanciers, is the roup. This, in the first instance, undoubtedly arises from a cold, which, if neglected, develops into true roup. There are many remedies given as absolute specifics, but I have found that a preparation given one bird and a cure effected will not have the slightest effect on the disease if given another. In the early stage of roup I have found Mr. M'Dougall's Fluid Carbolate a sovereign remedy. My method is to squeeze the mucous out of the nostrils, washing the head with the fluid and cleaning out the roof of the upper mandible, and in cases where the throat is attacked it is best to mop the throat with

the fluid by the aid of a throat brush, which can be obtained at any chemist's at a trifling cost. Where there are a number of birds to be treated, a few drops of eucalyptus oil added to the drinking water not only assist to kill the disease, but prevent infection, but the birds must be prevented from obtaining water other than that to which the oil has been added. In all cases of roup (and I do not think it is generally known) there is always a certain amount of fever present, and I have found that a pill made with bran and pollard (about the size of a marble), with sulphate of quinine and a few drops of Parrish's Chemical Food—sufficient to mix—that it keeps the fever down and creates an appetite, thus keeping the bird from wasting away. These pills should be given regularly each night, but if the bird shows signs of debility, give the pills twice a day, morning and night; also add a teaspoonful of Parrish's Food to the drinking water until improvement takes place, when the treatment may be gradually decreased, and finally left off altogether. Keep the bird in as warm and dry a pen as possible, and quite free from draught. I have also used this same treatment in cases where a bird is commonly called 'going light,' and been very successful in pulling them through. I attribute this latter ailment to bad food, or food left in the pen until it becomes sour, and the bird having eaten it in this state often gives the disease a start. In addition to the treatment the birds should be allowed a good grass run if practicable, limiting the grain food given, substituting good wholesome soft food and a little finely-chopped meat. Often this complaint arises from over-showing, so that birds often exhibited should be limited to a soft food diet for a few days following when placed back in the run, in order that the bird will be able to obtain the necessary grit, and the gizzard get into proper working order again.

"With the Modern Fowl, Fanciers well know the difficulty of keeping a stylish chicken on his feet, the breed suffering a good deal from leg weakness. Most of those who breed them think a cure can be effected by giving the bird a big grass run. This is a mistake. The bird requires his legs to have a rest, not to run him off them. A small pen with a dry, sandy bottom, with plenty of grit and ground oyster-shells, will work wonders; and to the drinking water should be added a teaspoonful of Parrish's Food one day, and clear lime water the next. The bird will do far better than if allowed a big grass run, providing that he has not been allowed to get too bad.

"I do not think that this breed in Australia suffer from the variety of diseases they are subject to in Great Britain, and once the Fancier can cope successfully with roup there will be little fear of failure from any other ailment, and having given the treatment I pursue with success will no doubt be of some value to brother Fanciers. There is another complaint which chickens are often subject to, called by Fanciers in error chicken pox. This is not a disease, the cause being mosquito bites pure and simple. My birds were attacked year after year, and suffered considerably. I was led to believe that it was a disease, but finding various *adult* imported birds affected in the same manner set me thinking, which caused me to hit upon the expedient of preventing these troublesome insects from congregating in the pens. I procured raw carbolic acid, the common black ingredient used for disinfecting purposes, and as the chickens grow up I give their houses a thorough spraying once a week with the acid, and while operating find that the mosquitoes clear off for the fresh air, and now I am not troubled in the slightest degree with chicken pox or warts. If any of the birds are attacked, I find a salve made of vaseline and eucalyptus oil rubbed on the affected parts will quickly effect a cure, and prevent further attacks of these troublesome pests.

"In giving a description of the various colours I will start with the Black-Red, so named from these colours forming the combination. The colour of the modern type of bird should be—in the cock, eyes orange red, smooth red face, legs willow, head and neck hackle orange red, without showing any light shading or black streaks; back, wing-bows, and shoulder-coverts rich crimson, the wing-bows clearly cut, without running into the black; the saddle hackles rich crimson, slightly shading off towards the tail, not mottled, as too often seen; the breast black, showing a steely-blue sheen from throat to thighs; tail, rich black, with brilliant sheen; wing-bars, steel-blue; wing secondaries, a rich chestnut. The English writers, notably those in Wright's 'Book of Poultry,' give three colours of the Black Red cocks; but, as all Fanciers desire to win, it is well to take this as the colour for the Show pen, and breed birds to this standard of marking,



Modern Red Pile British Game.

The property of Mrs. W. H. Webb, Bathurst, N.S.W.

COCKEREL—Winner of 1st and Special, Poultry Club Record Show, 1897.

leaving second and third colours out of the question. A cock of the colour I have described, and mated with two selected hens, will breed cockerels from the one and pullets from the other which will be all desired, there being no other colour of Game which will breed as true to feather as the Black-Reds.

"The hen, to match this cock for producing *pullets*, should match the cock in eyes, beak, and legs, and have head and neck hackle golden, streaked with black, not mottled; back and wings, a sort of golden brown (very hard to define), with very evenly-marked, small, wavy-black pencillings, but quite free from shafts or streaks in the feather (English writers term this marking partridge, but, as partridge markings are more distinct, and more like black blotches, I cannot see the analogy). This colour should extend well up the tail feathers; the flight coverts should be a trifle darker even towards the tips. The true tail feathers at the roots should be brown, merging into black towards their ends. The breast should be a rich light salmon, evenly marked and not streaked, running off to an ashy-grey colour on the thighs. This is the colour of hen to breed from in order to obtain good pullets, and occasionally a good cockerel will come from this system of mating, which will be of the greatest use as a pullet breeder; but my experience proves that, as a general rule, cockerels bred from hens of this colour are far too dark for Show purposes.

"The hen to put with the cock for breeding cockerels should match the cock in eyes, beak, and legs. The head and neck hackle should not show nearly so much streak as the first hen described, the whole body colour being of a much lighter shade, and a rust or rich brown colour on the wings and sides; this rusty marking is a decided fault for the Show pen, *but for breeding bright-coloured cockerels is a necessity*, the pullets, however, not being fit for exhibition, so that these must be retained again for cockerel breeding. Both of the hens described will throw close, hard-feathered birds, and, in order to keep this good quality intact, *never use a Pile or Duckwing cross to try and improve Black-Reds*, as the young stock so bred will come loose and soft in feather.

"The next colour that is most fashionable in Australia at the present time is the Lancashire Pile, the cock being white where a Black-Red is black, and red where he is red; and here let me state that some Fanciers do not think a few black or ticked feathers in the tail or a blotched or marbled breast any detriment, but in my opinion and fancy, as the Pile markings are exactly the same as the Black-Red, with the exception of the ground colour, any black feathers should be an objection. Imagine a Black-Red being exhibited with a red blotched breast or white feathers in the tail; and it should require very little argument, if any, to convince Fanciers the black markings or red marbling on breast and underparts are very objectionable faults. The Pile cock's breast should be white, his tail and underparts the same; the feathers of the head and neck hackle a bright red (a shade lighter than the Black-Red) right through to the points, not streaky or mottled, but a good sound colour; back, shoulder coverts, and wing-bows a rich crimson, not rusty or clay-coloured; flights white, edged with rich bay. The Pile cock's legs and beak should be a bright yellow or orange, eyes orange red, face and throat red, the skin of smooth texture. This is the colour I fancy most, though it is difficult to breed Piles, especially with a Black-Red cross, that will not show the black feathers or blotched breast; but in time, if Fanciers will only study the mating of their birds, they will manage to produce a bird approaching perfection.

"The Pile hen should match the cock in eyes, face, beak, and legs. Her head feathers and hackle should show a light shade of gold colouring streaked with white, becoming more pronounced towards the end of the hackle; back, wings, and tail, pure white; breast, a rich salmon right from throat to thighs, shading off to a much lighter colour on the belly and underparts. Piles breed fairly true to colour, but it is at times necessary, in order to preserve the richness of colour and hardness of feather, to have recourse to the Black-Red to keep this up. (A pen of Piles will often throw a certain percentage of Black-Red chickens.) It is best, when using the Black-Red to cross, to select a hen which has a clear white body, and as pale in breast as possible. This will produce good cockerels, but no clear-bodied pullets, and to produce pullets for the Show pen these must be bred from Piles on both sides.

"The next Standard colour is the Duckwing, so called from the marking of the cock's wing, which resembles the wing of the Mallard Drake. In this colour the breeder has a difficult task to produce

cockerels and pullets, and one which takes his brains to make the birds for the purpose. One has but to inspect the exhibits at the big Shows in this class to note the vast difference there is existing in the colours shown.

“The correct colour for a cock of this variety, according to the awards at our leading Shows for several years past, is:—Eyes, orange red; face and throat, rich bright red; beak and legs, willow; head feathers and neck hackle, silvery white; back, a rich maroon, approaching to crimson, shading off to a rich straw colour on the saddle hackles. In my opinion, this is not correct, as the saddle hackles should be as nearly silver white as possible to match the neck hackles, and it is very seldom that there is a bird exhibited approaching this. The shoulder coverts should be a bright, brassy colour, clear and distinct, and not running into the black of the wing-butts, or into the steel-blue wing-bar below, the white coverts showing the clear white marking. The wing-butts should be perfectly black, the breast having a steely-blue sheen, and the tail black and glossy.

“The hen should match the cock in eyes, beak, legs, and face. The head feathers should be a light grey, not showing rusty markings above the eyebrows; hackle, silver-grey, having a black stripe each side of the shaft; breast, a bright salmon red; back and wings, slaty-grey, with much small wavy-black pencillings, free from rusty or shafty markings; the tail, dark grey, nearly black.

“In order to retain the hardness of feather, and keep up the colour of the cockerels bred, it is imperative to cross with the Black-Red, and I have found that the best cockerels are produced in this manner; but the pullets so bred are not fit for the Show pen, the Black-Red blood showing out in the rusty markings and brown cap on the head. In order to breed the Show pullets, Duckwings must be used on both sides, and even then the cockerels thus bred will often show some Black-Red markings. This colour of Game does not receive the attention in Australia which they deserve, as they are, without doubt, one of, if not the most, handsome and attractive of all.

“The next Standard colour is that of the Brown-Red, and although this breed when seen at its best is one of the most beautiful of all the colours of Game, yet we find that, within the last few years, the exhibits, in point of numbers, have been gradually falling off, very few Fanciers taking the trouble to breed them. My experience is, that there is a something in these birds that none of our Fanciers seem to understand. I have bred the Standard colours often, but as for getting the shape, style, and reach of the Modern Game into Brown-Reds, well, it has simply beaten me—and, I am sure, many others. I have imported tall, reachy birds, and expected to get something to look at, but always suffered disappointment. There seems to be a disposition in these birds to become short and thick-set, and a general deterioration; in fact, they are a class of birds that the great difficulty of breeding them for the Show pen prevents them becoming favourites in this country, though in Great Britain they are highly prized.

“The Brown-Red cock should have eyes black; beak, legs, and feet, as dark as possible; face, purplish black; head, golden; neck hackle, bright lemon, striped with black; back, bright lemon, evenly striped with black; the saddle hackle, shading off to bright lemon; the shoulder-coverts and wing-bows, bright lemon; breast, rich black, each feather from the throat to the thighs being evenly laced around the edge with gold colour, not too heavy, giving the bird the appearance of having a front of golden chain mail; the rest of the body, including the tail, rich black.

“The Brown-Red hen should match the cock in face, eyes, beak, legs, and feet. Her back wings and tail should be of the brightest green-black colour, *showing no lacing or marking whatever on the back, wings, or tail*; black breast, lightly and evenly laced with lemon; the neck hackle should be black, edged with lemon, richly and evenly distributed throughout, but on the head the feathers should be a darker gold. I find that these birds do not breed true to colour, and no doubt this is the cause of Fanciers not breeding them. From a pair of prize birds I have got birds of all shades of colour, and they never can be depended upon. The best of this colour I ever bred were from a Lemon cock and a Birchen hen, that is, a hen with

silver hackle and silver lacing on the breast, and I obtained from this cross both cockerels and pullets, but no Fancier can tell in this colour what he is going to produce even from the best coloured birds.

“There is another handsome variety, termed in Australia the Birchen, but this is not the bird spoken of in Wright’s book. This latter is a Birchen Grey, or, rather, a true Silver Duckwing. The birds under description are more of the Brown-Red stamp, and come from the cross between a Duckwing cock and Brown-Red hen, and the result is a most attractive bird. He is silvery white where the Brown-Red is lemon, and the silver lacing on the breast in a well-marked bird is very striking, the silver and black forming a brilliant contrast.

“The Birchen hen is marked exactly the same as the Brown-Red hen, substituting the silver for the gold or lemon on the latter.

“This beautiful variety is very valuable if a fine reachy specimen, and is worth his weight in gold to a breeder of Brown-Reds. I have found that putting a bird of this colour to a rich Brown-Red hen will produce really good Lemon Brown-Red cockerels, and a good percentage of fair pullets.

“The White Game is also a beautiful variety if of the proper type, but all those I have seen exhibited here have been, to my mind, more like half-bred Colonial, being too thick in every way.

“In penning my experiences on Modern British Game, I do not wish my readers to infer that I am conceited enough to imagine that I am infallible, but I do hope that the advice I have given will induce Fanciers of this beautiful Fowl, as well as the beginner, to use their brains and think matters out for themselves, because I find that birds will often produce good chickens with one hen, while with another will be a comparative failure; and very often, in this latter case, after Fanciers have given a bird a trial and failed, will get rid of the bird, and often regret afterwards that they had done so, another breeder being successful with the same bird mated in a different manner. My remarks are based upon a lengthy and thoroughly practical experience, and given for the purpose of endeavouring to further increase and encourage the fostering and breeding of that noblest of all Fowls in the Poultry World, the Modern British Game Fowl.”

The thanks of beginners in the Modern Game Fancy are due to our valued contributors for the information given on the breed. The explicit, exhaustive, and valuable hints on the mating and breeding of this magnificent Show Fowl will be found of solid practical use, and should assist in encouraging and stimulating the already widespread interest in the breeding and exhibition of the Modern British Game Fowl. As neither of our esteemed authorities have, however, given any advice on the handling and rearing of the Modern Game chickens, and as their feeding and management is rather different to other varieties, we will now proceed to give a little information which may also be helpful in conjunction with that given on their breeding. To the latter we do not wish to add one word.

Many beginners imagine that the Modern Game Fowl can be hatched and reared anywhere, and under any conditions, and much money is lost yearly by the deaths caused by not giving this serious consideration. If the ground on which it is desired to rear them is not of the very driest, and the site selected for the front of the house the north or north-east, do not attempt to rear Modern Game—Leghorns or Brahas will do much better. For the breeding stock, if you have a piece of spare ground at your disposal, even if the soil is heavy, clayey, or damp, you may manage providing that the roosting-house is perfectly dry and free from draught, and large enough to accommodate them during the very wet weather. The larger the run outside the roosting-house the better, though a grass run 20 x 20 feet will do admirably for a cock and two or three hens; if a still larger run can be provided they will do much better, or if two runs 20 x 20 feet are used alternately, the ground will keep sweet and clean. They will not do well if the ground becomes foul and tainted, so that it is better to have one pen well managed than a number neglected, the latter invariably resulting in loss, while the former will prove remunerative. A sandy floor to the house is quite the best bottom. This can be sifted, and the whole of the droppings cleared away. The sand is also excellent for the feet, preventing in a great measure the formation of corns on the feet and under-joints of the toes.

In feeding the breeding stock, until sufficient eggs have been secured for hatching, the morning meal should consist of barleymeal, oatmeal, and pollard in equal quantities, a little linseed and a piece of chalk and sulphur mixed with boiling water into a crumbling mass; green vegetables in abundance for the mid-day meal, and good sound wheat for the last meal in the evening. Indian corn should be strictly avoided, as it is the very worst food for Game hens during egg-formation, and if fed on it weakly chickens will result from the eggs laid, that is if any hatch at all. In setting the hens eight to ten eggs are quite sufficient, as the fewer chickens a hen has to look after the better they come on. Chickens hatched in July or August are, as a rule, the best; and the sooner a Game chicken endeavours to find his own food, leaving the rest of the brood, the better bird it will turn out. The first meal should be fed the chickens when they are twenty-four hours old, and be composed of fine oatmeal, mixed with boiling milk into a crumbling mass. Never feed chickens with *soft* food on dusty or dirty ground; this encourages disease in many forms. We do not believe in egg and bread crumbs for Game chickens. Birds of the Modern Game class are far better dead if they require it. Good sound and wholesome oatmeal can, and does, build up the physical proportions of a 15 to 18 stone Scotchman without superfluous fat, so that it should act on the same principle with Modern Game chickens. Fat is not wanted in their composition; bone and muscle are the desiderata. When the chicks are a fortnight old sound wheat should be fed at night, the morning and mid-day meals being the same as advised to feed the brood stock. This is best fed in shallow pans, removing all food after they have had sufficient. When the chickens are eight to ten weeks old they should be taken away from the hens and separated, the cockerels put out on walks if practicable, but on a large run—the larger the better—if kept at home. At the age of four or five months the birds should be sorted out, and those intended to be kept for breeding or show housed in roomy, dry quarters. The houses should be properly ventilated at or near the roof, with a large aperture at the bottom of the house to admit fresh air and expel the foul or hot air. Unless proper ventilation is secured, the young stock will begin to show a running from the nostrils of a semi-watery fluid, which in 90 per cent. of cases, if neglected, will develop into roup. This watery discharge is highly contagious, but if taken in time can be easily checked by giving in the drinking water one ounce of Epsom salts to each gallon of water, also giving every alternate night a pill composed of one grain of calomel and two grains of socotrine aloes; these can be mixed together by the aid of lard, treacle, or common tar. The perches should be well wrapped round with strips of stout carpet an inch in width, and about half an inch space allowed between each wrap. A pole about $1\frac{1}{2}$ inches to 2 inches in diameter answers admirably for young stock. This will certainly prevent the breast-bone becoming crooked, and the attacks of vermin may be guarded against by soaking the underneath side of the roost with kerosene. Enough of the oil will penetrate through to prevent the vermin getting a foothold, but not enough to soil the birds' plumage or injure the feet.

The roosts for Modern Game Fowls should not be higher than 24 inches from the ground, as it must be remembered that they are short in wing and feather generally, and if placed at a much greater elevation great risk is run of broken toes or bumble feet.

For feeding the Modern Game preparatory to Exhibition, that is from a fortnight to a month previously, a meal composed of the following ingredients will be found on trial to be one of the very best to obtain high results:—Sifted barley meal (taking care little or no husk is present, as this is extremely likely to cause crop irritation), 14lbs., fine oatmeal 4lbs., pollard 8lbs., wheaten flour 4lbs., ground linseed 1lb., sulphur 1oz., whiting 1oz. The linseed and sulphur produce a beautiful sheen and satisfies the natural craving for animal food, while the whiting prevents any scouring.

If a bird shows signs of debility, either from outgrowing its strength, over-showing, or moulting, a teaspoonful of cod liver oil mixed in the oatmeal and pollard is one of the very best restoratives that can be given, and, if it can be afforded, the young stock from three to five months should also be given the oil three times per week,



Modern British Duckwing Game.

Bred by and the property of Mr. C. W. Pattison, Leichhardt, N.S.W.
COCK—"The Duke." HEN—"The Duchess"
Winners of Champion and many 1st Prizes at the principal Australian Shows.

SCHEDULE FOR JUDGING MODERN BRITISH GAME.

GENERAL CHARACTERISTICS OF COCK.

Head.—Long, lean, and narrow.

Comb.—(If undubbed), thin, small, neat, well serrated, straight, and perfectly erect.

Beak.—Long, strong, and very slightly curved.

Eyes.—Large, bold, fiery, and prominent.

Face.—Lean, covered with skin of fine texture.

Throat.—Long, with fine and smooth skin.

Wattles.—(If undubbed), small, round, and thin.

Ear-lobes.—(If undubbed), very small, and free from white.

Neck.—Long and slender, forming, with the head, a graceful curve.

Hackle.—Short, close-fitting, and narrow.

Back.—Flat and short, broad at shoulders, and tapering off to a fine, narrow stern.

Breast.—Rather broad, but not too prominent.

Wings.—Short, well curved, and fitting closely to the body.

Tail.—Small, carried tightly closed, and rather low.

Sickle Feathers.—Fine and narrow.

Tail Coverts.—Scanty, narrow, short, and fine.

Thighs.—Long, muscular, set well apart, and rather prominent.

Legs.—Long, straight, round, and slender, with fine, close-fitting scales.

Feet.—Sound. The toes long, straight, well spread, and flat on the ground; the hind toe set on low, and well extended.

Plumage.—Short, hard, and bright.

Body.—Firm on handling, muscular, and compact.

Weight.—6 to 8 lbs.

Shape and Carriage.—Erect, clean-limbed, tall, smart, and racy.

GENERAL CHARACTERISTICS OF HEN.

Head.—Long, narrow, neat, and tapering.

Comb.—Very small, thin, neat, perfectly erect, straight, low in front, and evenly serrated.

Beak.—Long, strong, and slightly curved.

Eyes.—Large, fiery, and prominent.

Face.—Lean, covered with fine, smooth skin.

Throat.—Long, with fine, smooth skin.

Wattles.—Very small, fine, thin, and round.

Ear-lobes.—Small and close-fitting, quite free from white.

Neck.—Long, slender, and slightly arched.

Hackle.—Short, close-fitting, and narrow.

Back.—Flat and short, broad at shoulders, and tapering towards the tail.

Breast.—Rather broad, but not too prominent.

Wings.—Short, well curved, fitting closely to the body, and well tucked up.

Tail.—Short, closed up tightly, and carried low.

Thighs.—Long, firm, muscular, set well apart, and rather prominent.

Legs.—Long, straight, slender, round, and with fine scales.

Feet.—Flat on the ground, toes long, thin, straight, and well spread; the hind toe set well back.

Plumage.—Short, hard, and bright.

Weight.—5 to 6½ lbs.

Shape and Carriage.—Erect, smart, blood-like, fearless, and active.

POINTS OF COLOUR IN BLACK-BREASTED RED GAME.
COCK.

Head.—Bright light orange red.

Face and Throat.—Rich bright red.

Comb, Wattles, and Ear-lobes.—(If undubbed), rich bright red.

Eyes.—Ruby red.

Beak.—Dark horn colour.

Neck Hackle.—Light orange red, free from stripes or mealiness.

Back.—Bright crimson.

Wing-butts and Shoulders.—Black.

Wing-bows and Shoulder Coverts.—Crimson.

Wing-bars.—Steel blue.

Primaries.—Black, except the two lower feathers, the outer edges of these being bay.

Secondaries.—Bay on the outer web, black on the inner.

Saddle Hackle.—Orange to match the neck hackle.

Tail.—Blue-black.

Sickle Feathers and Tail Coverts.—Glossy, bright blue-black.

Breast and Thighs.—Bluish-black.

Under-parts of Body.—Black, quite free from rustiness.

Legs and Feet.—Willow or olive.

HEN.

The hen should match the cock in face, comb, wattles, ear-lobes, eyes, beak, legs, and feet.

Head.—Golden.

Neck Hackle.—Golden, with narrow but well-defined black stripes in the centre of each feather.

Back and Shoulder Coverts, Wing-bows, and Tail Coverts.—All one even shade of a light brownish drab, finely pencilled with minute black markings.

Primaries.—Black.

Secondaries.—Outer edge like the wing-bow, the rest black.

Tail.—Black, except the top outer feathers, which should be the same shade as back and wings.

Throat.—Light salmon colour.

Breast.—Rich salmon red, shading off to an ashy-grey on the belly and under-parts.

Thighs.—Pale salmon or ashy-grey.

POINTS OF COLOUR IN BROWN-RED GAME.

(Better described as Laced-Breasted Lemon-Black Game).

COCK.

Head.—Lemon or golden, striped with black.

Comb.—(If undubbed), dark purple.

Face.—Dark gipsy, *i.e.*, dark mulberry or purple.

Wattles and Ear-lobes.—(If undubbed), dark red or purplish.

Eyes.—Black.

Neck Hackle.—Lemon or golden, with a very narrow black stripe down the centre of each feather.

Back and Shoulder Coverts.—Lemon or golden.

Saddle Hackle.—Lemon or golden, with black stripes down the centre of the feather.

Wing-butts and Shoulders.—Black.

Wing-bows.—Lemon or golden.

Coverts.—Rich black.

Primaries and Secondaries.—Black,

Tail.—Black.

Sickle Feathers and Tail Coverts.—Glossy green-black.

Breast.—Rich black, each feather showing lemon or golden coloured shaft, and margin all round.

Thighs and Under-parts.—The front of thighs may be laced like the breast, the rest black.

Legs, Feet, and Toe Nails.—The darkest bronze, almost black.

HEN.

The Brown-Red hen should match the cock in comb, face, lobes, eyes, legs, and feet.

Head.—Lemon, straw, or pale gold.

Neck Hackle.—Lemon, straw, or pale gold, with narrow black stripes running down the centre of each feather.

Breast.—Black, laced with lemon, straw, or pale gold.

Remainder of Plumage.—Bright, lustrous green-black.

POINTS OF COLOUR IN BIRCHEN-GREY GAME.

COCK.

Head.—Silvery white.

Comb, Face, Throat, Wattles, and Ear-lobes.—(If undubbed), dark purple or mulberry.

Eyes.—Black, or as dark as possible.

Beak.—The darkest horn.

Neck Hackle.—Silvery white, with a very narrow black stripe down the centre of each feather.

Back, Shoulder Coverts, and Saddle.—Silvery white.

Wing-butts and Shoulders.—Black.

Wing-bows.—Silvery white.

Wing-bars or Coverts.—Glossy rich black.

Breast.—Sound black, each feather showing silvery shaft and margin, giving a distinctly laced appearance.

Thighs and Under-parts.—The front of thighs may be laced like the breast, the rest black.

Sickle Feathers and Tail Coverts.—Glossy green-black.

Remainder of Plumage.—Sound black.

Legs, Feet, and Toe-nails.—The darkest bronze, almost black.

HEN.

The Birchen-Grey hen should match the cock in comb, face, ear-lobes, eyes, legs, and feet.

Head.—Silvery white.

Neck Hackle.—Silvery white, with a narrow black stripe down the centre of each feather.

Breast.—Black, laced with silvery white.

Remainder of Plumage.—Bright, lustrous green-black.

POINTS OF COLOUR IN GOLDEN-DUCKWING GAME.

COCK.

Head.—Clear creamy white.

Comb, Face, and Throat.—Bright red.

Eyes.—Bright fiery red.

Beak.—Dark horn.

Neck Hackle.—Clear creamy white, quite free from any striping whatever.

Back, Wing-bows, and Shoulder Coverts.—Clear orange or golden yellow.

Wing-butts and Shoulders.—Black.

Wing-bars.—Steel-blue.

Primaries.—Black, except the lower edge of the bottom feathers, which should be light brown.

Secondaries.—The lower web clear white, with a blue-black end to each feather, the upper web black.

Saddle Hackle.—Straw or creamy white.

Breast and Thighs.—Sound blue-black.

Under-parts of Body.—Sound black, quite free from grey.

Tail.—Blue-black.

Sickle Feathers and Tail Coverts.—Glossy blue-black.

Legs and Feet.—Willow or olive green.

HEN.

The Golden-Duckwing hen should match the cock in comb, face, eyes, lobes, legs, and feet.

Head.—Silvery white.

Neck.—White, with narrow black stripes running down the centre of each feather.

Throat.—Light salmon.

Breast.—Rich salmon, shading off to an ashy-grey on thighs and belly.

Back, Shoulder Coverts, Wing-bows, and Coverts.—French grey, or pale slate-coloured ground, minutely pencilled all over with black.

Primaries.—Black.

Secondaries.—The outer web like the back and wing-bow, the inner one black.

Tail.—Black, except the top outer feathers, which should be like the wings and back.

POINTS OF COLOUR IN SILVER-DUCKWING GAME,

COCK.

Head.—Clear silvery white.

Comb, Face, and Throat.—Bright red.

Eyes.—Bright red.

Beak.—Dark horn.

Neck Hackle.—Silvery white, free from markings.

Back, Wing-bows, Shoulder Coverts, and Saddle Hackle.—Pure silvery white.

Wing-butts and Shoulders.—Black.

Wing-bars.—Steel blue.

Primaries.—Black, except the lower edge of the lower feathers, which should be almost white.

Secondaries.—The lower web white, the upper black.

Breast and Thighs.—Sound blue-black.

Under-parts of Body and Tail.—Sound black.

Sickle Feathers and Tail Coverts.—Glossy blue-black.

Legs and Feet.—Willow or olive green.

HEN.

The Silver-Duckwing hen should match the cock in comb, face, eyes, ear-lobes, legs, and feet.

Head.—White.

Neck Hackle.—White, with narrow black stripe running down the centre of the feather.

Throat and Breast.—Pale salmon.

Thighs and Under-parts.—Pale ashy-grey.

Back, Shoulder Coverts, Wing-bows, and Coverts.—Very light French grey ground colour, pencilled all over with minute markings of black.

Primaries.—Black.

Secondaries.—The outer web like the back and wing-bar, the inner one black.

Tail.—Black, except the upper feathers, which are similar to the wings and back.

POINTS OF COLOUR IN RED-PILE GAME.

COCK.

Head.—Orange red.

Comb, Face, and Throat.—Bright red.

Eyes.—Bright red.

Beak.—Yellow or horn colour, in either case the colour must correspond with the colour of the legs and feet.

Neck Hackle.—Orange red.

Back, Wing-bows, and Shoulder Coverts.—Rich bright crimson.

Saddle Hackle.—Orange or orange red.

Wing-butts and Shoulders.—White.

Wing-bars.—White.

Wing Primaries.—White.

Secondaries.—The outer web bay or chestnut, the inner white.

Breast and Thighs.—Pure milky white.

Tail.—White.

Legs and Feet.—Yellow or willow, the former preferred.

HEN.

The Red-Pile hen should match the cock in comb, face, ear-lobes, beak, feet, and legs.

Head.—Light golden.

Neck Hackle.—Golden, with narrow white stripes in the centre of each feather.

Breast.—Rich salmon red.

Remainder of Plumage.—As clear and creamy white as possible.

POINTS OF COLOUR IN LEMON-PILE GAME.

COCK.

Head and Neck Hackle.—Pale lemon.

Face, Comb, and Throat.—(If undubbed) red.

Eyes.—Bright fiery red.

Beak, Legs, and Feet.—Yellow or orange.

Back and Wing-bows.—Orange or lemon.

Saddle Hackle.—Pale lemon.

Wing Secondaries.—Pale chestnut on outer web

Remainder of Plumage.—Pure clear white.

HEN.

The Lemon-Pile hen should match the cock in comb, face, eyes, beak, legs, and feet.

Head and Neck Hackle.—Pale lemon, with white stripes down the centre of each feather.

Breast.—Pale salmon.

Remainder of Plumage.—Pure clear white.

POINTS OF COLOUR IN WHITE GAME.

COCK AND HEN.

Comb, Face, Ear-lobes, and Wattles.—Red.

Eyes.—Rich ruby red.

Beak, Legs, and Feet.—Yellow or orange.

Plumage.—Pure clear white.

POINTS OF COLOUR IN BLACK GAME.

COCK AND HEN.

Comb, Face, Ear-lobes, and Wattles.—Purplish red.

Eyes.—Dark brown or black.

Beak.—Dark horn or black.

Legs and Feet.—Dark bronze, almost black.

Plumage.—Lustrous greenish-black.

The Australasian Book of Poultry.

SCALE OF POINTS FOR JUDGING MODERN BRITISH GAME.

A perfect bird to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and neck	10
„ Eyes	8
„ Body and wings	12
„ Legs and feet	12
„ Tail	10
Want of Symmetry	10
„ „ Condition	15
Bad Colour	15
Softness or too much feather	8

100

DISQUALIFICATIONS.

Any other than single comb, flat shins, duck feet, crooked breast, wry tail, and deformed back. If shown together, birds not matching in colour; any fraudulent dyeing, dressing, or trimming, other than that recognised by the Game and Game Bantam Club of Australia.



CHAPTER XXIX.

BRITISH GAME (OLD STYLE).

THE old-fashioned stamp of Game Fowl has, probably, the oldest record of all known distinct breeds of Domestic Poultry, cock-fighting being mentioned in the "Codes of Manu" (India), written 1,000 years before Christ. The ancient Greeks and Athenians fought cocks, and the Romans were also passionately devoted to the sport. The British race, during the reign of King Henry II., also patronised the diversion to a great extent, and this was continued, without intermission, till quite a comparatively recent date, and, in fact, at the present time is carried on much more than is generally supposed.

At the same time there is little information beyond conjecture as to the origin of Game Fowls, and no historical data as to when they were first kept in a state of domestication.

Mr. Herbert Atkinson (Eng.), in his valuable monograph ("The Old English Game Fowl," ¶ p. 9), states:—"As to the origin of the Game Cock, many writers have aired their pet theories. Nearly all, however, attribute his origin to four varieties of Jungle Fowls, viz., *Gallus ferrugineus*, *Gallus sonneratii*, *Gallus furcatus*, and the *Ceylon Jungle Fowl*. We are bound, however, to add that, although these wild varieties are game in the wild state, yet the crosses that have been tried in India with the Jungle Fowl have been failures in point of courage, and while it was the opinion of one of our ablest authorities on Game Fowls, and in which I entirely coincide, that the yellow-legged and yellow-fleshed varieties were introduced from India at a comparatively later date, and are descended from some of the wild Jungle Fowls still in existence there, the older white-legged and white-fleshed birds are not of that origin, but have been in England from the earliest times, and are probably descended from some species now extinct." Mr. Atkinson also quotes the opinion of Trevor Dickins, Esq., "that the original wild varieties of Game Fowls were:—
1. Black-Breasted Reds with fawn Partridge hens. 2. Brown-Breasted Reds with Dark-Brown hens. 3. Red-Breasted Ginger-Reds with yellow legs and light Partridge hens.

"Whatever may be the doubts as to the origin of the Game Cock, it is certain that he has been bred for his work for many centuries. He is, perhaps, somewhat changed in appearance, and has been divided into many different breeds and strains by selecting birds that were distinguished by some peculiar mark or colour, and which struck the fancy of their breeders, but no one conversant with the subject can doubt the fact that the *original* ancestors must have been possessed of the *true game courage and elegance of shape*, knowing that it is impossible that any amount of selection should produce truly *game* fowls from ordinary blood."

When bred for Pit purposes solely, the colour of legs, plumage, and shape were generally considered of little importance. *Pedigree was the all-important point*; but, though there were many and various colours produced by the long-continued crossing and re-crossing, there were at the same time many strains bred almost perfect in shape and colour points.

At that time there were certain structural developments bred for specially, such as a strong, stout head, with a powerful beak, well curved; a strong-looking neck, well arched; the shoulders well up, and broad between; the back flat across, and inclining towards the tail; the breast full, wide, and muscular; wings, large and powerful; thighs well apart, and very muscular; strong at the knee-joints; shanks, rather short and round; good feet, and the toes well spread; the back toes well extended, and in a line with the centre toes; and spurs well set on, and rather low. A cock with *duck feet, crooked breast, weak or deformed beak*, was discarded as a fighter or as a stock bird. Breeders were equally as particular with the hens used for breeding, *no structural malformation being tolerated in them*; and, though they would at times dispose of a

cock or cockerel of their strain, hens of any value would not be parted with, old cockers recognising that upon the hen, to an extraordinary extent in the breeding of *True Game Fowls*, the size, courage, shape, and stamina of the cockerels depended.

By this system of selection being pursued for such a length of time, the *game to the death* characteristic of a strain was kept up to the highest standard. The old-time hens were wonderfully smart-looking birds, the majority of them spurred, neat and blood-like about the head, with such bright, fiery eyes, broad shoulders, wedge-shaped, narrow-sterned bodies, their wings prominent, ready to be used in an instant! their tails large and expanded, legs fine in bone, rather short, with very muscular thighs—and they could fight like cocks. Hardness of flesh and feather were prime considerations in either sex.

Within the past forty years the Game Fowl, as exhibited at Poultry Shows, has undergone a complete metamorphosis; but a reaction has now set in, and the old style of Fowl is quickly being resuscitated. The old stamp of Game Fowl is a far superior table bird to the modern production—a better forager, the hens are superior layers, and the breed is of much harder constitution. There is such a wide distinction between this old stamp of British Fowl and the modern production, that virtually there is no affinity between them, and it was, no doubt, owing solely to the conservatism of the breeders of the original Game Fowl that they were partially neglected by the various Poultry Societies. This has now been all changed, the breed being



Reproduced from "The Feathered World."

Duckwing.

White.

Black-Breasted Red.

British Game of 1853.

offered classes at the principal Shows throughout England and Australia, with the result that in the former country they are now gradually superseding their distant relations in point of numbers and public estimation, and the Australasian Colonies will, presumably, follow suit. They are bred in a much greater variety of colours than the modern production, but have the one uniformity of type and carriage. The breed is classified as Reds, Greys, Piles, Duns, Blacks, Whites, and Various.

For some years past many breeders gave up the production of the old stamp of Fowl for that of the new, devoting their energies to the production of the longer and narrower headed, longer necked, shorter feathered, smaller tailed, longer limbed, reachy, stylish Exhibition birds of the present day. But, at the same time, there were a few true Fanciers who still cultivated the original type, and effectually saved them from total extinction, which at one time seemed imminent. For many generations they were bred solely for the cockpit, but the old stamp of British Fighting Game has greater value than their mere fighting propensities, or their Exhibition qualities. They are indisputably the finest table Fowl known, though rather small in size. They carry little or no offal, and have more breast meat than other birds twice their size. The hens

are good layers of well-flavoured eggs, of fair size, and lovely delicate colour, and as a mother she has no equal, defending her brood in the most stubborn and determined manner, and foraging for them with unflinching energy. In appearance the bird should be smart and lively looking, vigorous, and strong; hard and close in feather, and firm in flesh—the cocks weighing from 5 to 6½ lbs., the hens weighing from 4 to 5 lbs. Those mostly exhibited are Black-Reds, Spangles, Duns, Brown-Reds, Piles, Birchens, and Duckwings, and in breeding them the same rule applies as to the modern Fowl, with this difference, that the Black-Breasted Red cock may be darker in colour in hackle and back, and in both sexes the legs are preferred white. In rearing the chickens, it is imperative that ample space is at command, and under any circumstances, the earlier in the season they are hatched the better, and it may be accepted as a general rule that the eggs laid by the hen in the first part of her laying season will produce more *vigorous* and *larger* chickens than those laid later, and will, at the same time, yield a far greater percentage of cockerels. Late-hatched Game chickens rarely attain the size and vigour of the earlier hatched ones.

COCK-FIGHTING.

For the first authentic notice of cock-fighting in the Australasian Colonies we are indebted to the *Australian*, a newspaper published in Sydney sixty-eight years ago, which reports a main of cocks having been fought. This is fully described in the columns of the above paper, dated May, 1830 (and should definitely silence the statements made by various Australian writers, "that there were no Game Fowls in the Colonies prior to 1850"). It reads: "A main of nine cocks a-side was fought at Macquarie Fort on Saturday, for a sporting wager of one hundred pounds a-side. Two cocks fought very formidably for three-quarters of an hour. The battle was decided by five against four. The birds were pitted by Lieutenant-Colonel Allen and Major Poole respectively. Oatley and Bogg handled the cocks." This was during the time of Governor Darling, and throws a powerful side-light on Sydney social life of the time, and again is conclusive evidence that Game Fowls were kept and bred for sport, even in the earliest days of the Colony.

Up to within a quarter of a century back cock-fighting in Australia was an established form of amusement and sport, indulged in to a great extent, but of late years has almost died out, the risks and difficulties surrounding the holding of a "main," as it is called, effectually quelling the ardour of the "Pit's" supporters. At the same time, the "Game" is carried on to a limited extent among the staunch adherents of the old-time fighting Fowl; but the ranks of the old patrons of the sport becoming thinner and thinner each year, there is a very remote prospect of the revival of cock-fighting in this country, more especially as our laws make it an illegal act to pit two cocks together. The sport is carried on to a marvellous extent in the U.S. of America, taking rank with some of the more prominent sporting fixtures, the various strains and sub-strains of Pit Game Fowls being legion. In Cuba, Mexico, San Domingo, and the adjacent islands cock-fighting is the principal diversion. It is stated that the Indian's idea of Paradise is one vast cock-pit. At the "mains" the native is seen in his full glory. Even the Chinese residents are enthusiastic cock-fighters, and sportsmen to a man. The sport takes place on Sundays and holidays, the amounts lost and won in wagers on the results being astonishing. The matches generally commence on Sunday afternoons, by two natives matching their birds. When the first battle is decided, another pair are matched, and so on, the fighting being kept up until dusk.

That the sport has not yet died out in Great Britain is evident from the following, giving a description of a modern cock-fight, published in the *Pall Mall Gazette* :—

"The fighting takes place in a pit, as it is technically termed, a circular area, the floor of which is usually composed of newly-dug turf. Round the pit runs a parapet, two or three feet high, padded, to prevent injury to the birds. The referee is appointed at the pit-side, and so great is the law of honour which prevails among 'cocker,' that instances are on record where the referee has been allowed to 'back his fancy' during the progress of a battle. Said one old 'cocker,' with whom the writer conversed, 'I knew one famous referee who regularly betted during the progress of a "main," and I never heard a murmur against his

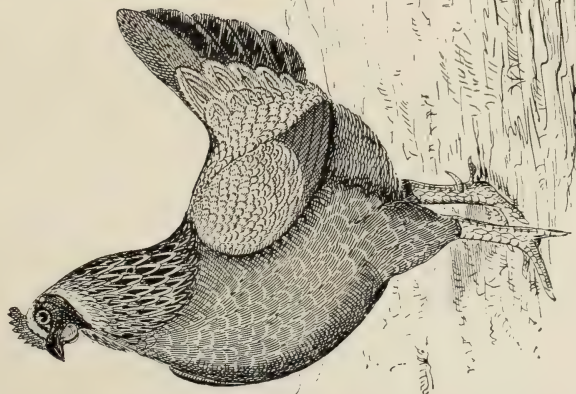
decision. This is rather "tall," isn't it.' Of course, my acquaintance proceeded to argue from this that cock-fighting is a true form of sport, when so much is left to the honour of its followers. 'What would a racing man think,' he proudly asked, 'if it were known that the Judge in a horse-race had been backing a horse?'

"As a rule, the fight takes place between 8 and 10 o'clock in the morning. Thus early, because it is the nature of the cock to be freshest then.

"An important person in the pit is the 'setter,' who stands in pretty much the same relation as a second in the prize-ring. One of the first acts before the great spectacle commences is the making of a collection—a custom, I am given to understand, not unknown in circles where the 'Pit' has a deep and darker significance—for the setters and feeders. Custom decrees that a sovereign should be dropped into the hat on such occasions. An equal division of the money subsequently takes place between the bird attendants on either side. The scales are now brought into the pit, together with the cocks. The final operation of weighing is generally attended with a great deal of excitement, because if either bird is so much as half an ounce over weight he is disqualified, and it counts as a victory to the other side. Assuming that the birds have been weighed in the balance, and not found wanting, each party to the fight takes his bird tenderly in his arms, and exhibits his spurs (technically called 'heels') to the other side. This is done with the idea of ensuring the use of 'fair' spurs, because there are some heels to which the contrary applies. The spurs used in cock-fighting are either steel or silver. The former is, of course, the much more deadly instrument. The majority of battles, however, are fought in silver spurs.

"The operation of heeling a Game cock requires the finest judgment, care, and experience, and takes at least half-an-hour. The spur is to be set on in an exact line with one of the tendons of the leg, and the slightest deviation would, probably, lead to the bird cutting its own throat with a thrust intended for its adversary.

"The duration of battles varies. Some are over in a second, the spur, perhaps, being driven right through the brain. The victor on these occasions struts proudly round the ring. One curious fact is vouched for by 'old cockers': A Game cock who has killed his bird has never been known to strike a blow at a dead adversary. Some battles last for considerably over an hour. A 'main' proceeds until one side has won seven battles out of thirteen, and thus is awarded the palm. The intricacies of cock-fighting are very great, and the length of the rules hardly allows them being set out here. One important rule, however, forbids the setter to touch his bird, except its spur has become inextricably fixed in the body of its rival, or in the turf floor of the pit. If both birds get exhausted, so that neither is able to strike a blow, it is open for either setter to 'tell' either the long or short 'law,' as it is called. In telling the long law, the setter bets £10 to £1 on his bird—that is, if the other bird should happen to strike a blow before he has counted a hundred, he will forfeit his £10. The short law is a variant of this, the amount being increased to £40. Game cocks kept for the pit are allowed to run about on the farms until a match is made, when thirty or forty birds are picked up, and put in separate pens, in a warm, well-ventilated room. For the first three or four days they are given purges, to get them into a fit condition, and other methods, similar to fighting men, are resorted to. The natural spur is cut off, leaving about one-eighth of an inch. Each day the birds spar in couples. Round their legs, where the remnant of the spur appears, is fastened a pair of boxing gloves (technically called muffs), with the idea that the birds shall not hurt themselves. There are various ways of feeding the birds. One of the most successful cockers of days gone by told me that the best thing to train a Game cock on was a little chopped raw beef, the best barley it is possible to procure, and bread made with wheaten flour and eggs, and baked to a degree of hardness. This bread is generally soaked in a little port or sherry before being given to the bird. A little chipped apple is also frequently employed. The great secret is to feed the bird little and often during the day, so that he never gorges himself, but is got into as fit a condition as possible. The care exercised in the feeding operations no doubt gave rise to the favourite expression, "To live like a fighting cock." Some of the more modern cockers have, on the day of battle, considered it prudent to give their birds a little bread steeped in brandy, but the old-fashioned school doesn't believe in 'Dutch courage.'



Old Style British Duckwing Game.

"I was invited some time ago to witness a cock-fight. I went in some trepidation, fearing a gory spectacle, but I came away convinced that there had been a sentimental exaggeration of the cruelties of the sport. The birds entered into the fight with vast spirit. As an example of pluck there is, probably, nothing in the world to equal it. The birds fight as if no such word as 'yield' existed in their vocabulary. They attack, and dodge, and feint with real science. Flying at one another, they attack on the top of the head, and get hold. The heart blow is the great blow. Many birds have an unfortunate knack of striking too high, or at the other's head. The bird most in favour is the one striking low, and is an adept at bringing off the heart blow.

"Cock-fighting has always been a high-class sport. Barring, of course, that form of the sport which finds favour amongst the Northern miners, the 'rough' element is never present at a fight. In fact, it is a matter of great difficulty to obtain an invitation. The only persons allowed to invite people are the two signatories to the articles of agreement, and everybody at the pit-side has to go through a minute and careful examination, and his *bona fides* vouched for by the master of the match. Perhaps it would be as well, in concluding this article, to recall the observation of one of the greatest sportsmen of modern days—Admiral Rous—on cock-fighting. In writing to the *Times*, when the question of the suppression of the sport was before the House of Commons, the Admiral asked, with a good deal of force, which was the noblest destiny for a Game cock—to spend his days in idle ease, and die an inglorious death for the table, or to perish in the pit, making a brave stand against his enemies."

*GENERAL CHARACTERISTICS.

COCK.

Beak.—Big, crooked, hawk-like, pointed, rather short, a long beak (especially underneath) lacks holding power; *Eye*, large, fearless, bold, quick, and fiery; *Head*, small and tapered, with throat and skin of fine quality, loose and flexible; a small throat and tight skin cause difficulty in breathing when in violent exercise; *Neck*, large-boned, round, strong, and of fair length; *Back*, short, broad across the shoulders, and tapering towards the tail; *Breast*, broad, straight, full, and prominent, the pectoral muscles being well developed, giving great power to the wings; *Wings*, large and long; *Quills*, powerful and strong; *Tail*, large and well spread; *Belly*, small and tight; *Thighs*, very short, round, and muscular; *Legs*, strong, clean-boned, not round or gummy like other fowls, nor too upright, nor too wide apart, but parallel with the body, well bent at the hocks (this feature is most important); *Spurs*, small, strong, and pointed, set low down; *Feet*, flat, thin, long, well spread, and tapering; *Toes and Nails*, the hind toe to extend well backward and flat on the ground, not twisted sideways or duck-footed; *Plumage*, the feathers strong, hard, close, sound, glossy, and sufficient; *Carriage*, bold, smart, each movement quick and graceful, proud and sprightly, as if ready for any emergency; *Handling*, clever; *Flesh*, firm, but corky and light, mellow and warm, with strong contraction of wings and legs.

The *hen* should resemble the cock at all points, making allowance for difference in sex; she should be wide on the back, short-legged, have a small, straight, and perfectly erect comb, well-serrated, small wattles, and ear-lobes of fine texture; be strong, yet clean and blood-like, in legs and feet; strong beak, well curved; short, wide body, her wings clipping her body tightly, and the ends almost meeting beneath her tail. Her movements should be quick and alert, and she should have a neat and gamey appearance, and if spurred so much the better. She should match the cock in beak, eyes, legs, and feet, and carry a fairly large tail, well spread out.

The Colours of Old Style British Game, as now recognised in the Show pen, are Black-Breasted Reds with white legs, Black-Breasted Reds with yellow legs, Black-Breasted Reds with dark, willow, or carp legs; the true Black-Reds, Black-Breasted Dark-Reds, Streaky-Breasted Ginger-Reds, Brown-Breasted Brown-Reds, Black-Breasted Dark-Greys, Mealy-Breasted Mealy-Greys, Black-Breasted Birchen-Duckwings, Black-Breasted

* *Old English Game Fowl*, by Herbert Atkinson.

Silver-Duckwings, Yellow-Birchens, Yellow or Golden-Duckwings, Smock-Breasted Bloodwing-Piles, Streaky-Breasted Piles, Marble-Breasted Spangle-Piles, Ginger-Breasted Yellow-Piles, Duns, Blacks, Whites, Cuckoos, Hennies, Muffs, and Tassells, in order named.

The Black-Breasted Reds with *white* legs are generally known as the Derby strain, but the true Derby birds had invariably grey eyes and an admixture of white in the plumage. For the Show pen any white in plumage is objectionable, and red eyes are preferred. The peculiarity of this breed is that the hackles of the cocks are bright *red* above and *white* beneath, showing white when the feathers are trimmed for the Pit. They are rather small birds, the cocks averaging $5\frac{1}{2}$ lbs., the hens $4\frac{1}{2}$ lbs. The legs of the breed are *white*, with a pinky shade down the sides of the shanks; the toe nails white, and the beak white, or faintly striped with horn colour.

The Black-Breasted Light-Reds with *yellow* legs have red eyes, and for the Show pen the cock should be perfectly black in breast, and the top colours of the body bright and glossy; the wing-bars blue-black and distinctly defined, the secondary feathers of the wing being a bright bay. The hens to match are of a Partridge colour for the Show pen, but the *wheaten* hens are sometimes used to keep up the bright colours in breeding the cockerels. There is a sub-variety of this colour which have the breast feathers in the cocks edged with brown, and often the wing-bar is brown. These are called *Shady-Breasted* Bright-Reds, and generally are a heavier class of birds than the first-mentioned.

The Black-Breasted Light-Reds with *dark, willow, or carp* legs breed exceptionally true to colour. The hens are of a sound Partridge, quite free from red or rusty markings on the sides of the wings, and are most favoured in the Southern and Midland Counties of England, whereas the white and yellow legged birds are more esteemed in the North. The colours of this strain are very clear, bright, and distinct.

The True Black-Reds are considered to be absolutely the purest strain of Game Fowls known; and, whereas the above-named fashionable varieties are of various hues, ranging from the darkest red to the brightest orange, this breed has but two colours in its composition—that, as the name implies, *black* and *red*. The hackles, back, wing-bows, and shoulder-coverts are a deep, clear, vivid dark red, *free from any black on the surface*, but *black at the roots of the feathers*, while the breast, thighs, belly, tail, wing-bars, *primary and secondary wing feathers* should be pure black. The brood hen to match a cock of this colour should be a *very dark* Partridge colour, with bright red, coppery hackle above, black beneath, brick-breasted, and the same colour underneath to the tail. In both sexes the eye, beak, legs, and feet are *black*, and the face, comb, ear-lobes, and wattles the *darkest or purplish* colour known as “gipsy face.” The Black-Breasted Dark-Reds are evidently a sub-variety of the above. The eyes, beak, and legs are *dark*, but *not quite* black; the hackle being striped with *black*, in other points agreeing with the True Black-Reds.

The Streaky-Breasted Ginger-Reds differ from the former in having the wing-bars of a *bay* colour instead of black; the breast of the cock is also streaked with brown, and the hackles a ginger or duller red. The hens are of a reddish colour throughout. The eyes of both sexes red, yellow, or pearl, and legs yellow.

The Brown-Breasted Brown-Reds are, after the Black-Breasted Reds, the most popular colour. The cock should be a rich brown in breast, hackle, shoulders, and saddle; tail and *secondaries* black, the hackle striped with black. There is also a sub-variety of this breed, known as Brown-Breasted *Orange-Reds*. These are orange in hackles, back, shoulders, and saddle, each feather striped in the centre with black; also another sub-variety, known as Brown-Breasted *Dark-Reds*. These are dark red in hackle, etc. The breast colours of these birds are various, such as brown or copper breasted, others streaky, and others laced; but these all differ from the *True Brown-Breasted Brown-Reds*. The hens to match are very dark brown or even black throughout, with the exception of the hackle, which is dark golden colour, well striped with black. These birds should have gipsy faces, *i.e.*, dark purplish; black beaks, eyes, legs, and feet.

The Black-Breasted Dark-Greys are similar in marking to the True Black-Reds, and are better known as Birchen-Greys. The hens to match are dark in body colour, with greyish hackles, striped with black.

The Mealy-Breasted Mealy-Greys are nearly white in breast, without spots or streaks; dark eyes, black legs, close-feathered and short-hackled, standing, as a rule, loftier than the other varieties.

The Black-Breasted Birchen-Duckwings are the products of a cross between the Black-Breasted Red, the Yellow-Birchen, and Silver-Duckwing hens. Yellow legs, red eyes, and a dark birchen colour across the shoulders define this breed; in other respects they resemble the Golden-Duckwing.

Black-Breasted Silver-Duckwings.—This beautiful breed was originally crossed with the Dorking to obtain the present Silver-Grey strain in the *Dorking*; not, as generally supposed, the Dorking being used in the production of the Silver-Duckwing Game. They should have red eyes; the cock being a glossy black in breast, thighs, belly, and tail, with a steel-blue bar across the wing, the hackle, back, shoulders, saddle, and wing secondaries being a clear, spotless, silvery white. The ground colour of the hen's plumage is a beautiful French slaty grey, marked with minute pencillings of black on body and wings; the tail dark, breast a light fawn colour, and hackle silvery white, striped with black; legs and beaks in both sexes are white. No other strain of Game Fowls will breed so absolutely true to colour for generations as the Black-Breasted Silver-Duckwings.

The Brown-Breasted Yellow-Birchen Cock has *yellow* eyes, beak, and legs. The hackle and saddle feathers are a pale straw colour, with a shade of birchen showing throughout; the wings brown, including the secondaries, the wing-bars being of the same colour. This strain is recognised as being among the very best of the Pit birds.

The Yellow or Golden-Duckwing is probably the most handsome of all the Game varieties. The cock should have *clear* straw-coloured hackles, the saddle hackle being one shade darker than the neck hackle; back, wing-bow, and shoulder-coverts a deep golden colour, the wing-bars a bright steel-blue, the wing secondaries pure white, each feather at the end being tipped with a steel-blue spot; the breast, thighs, belly, tail, and primaries black, the legs either yellow or willow. The hen to match is a shade darker than the Silver-Duckwing hen, both in body and breast.

The Red-Pile Cock is the exact counterpart of the Black-Breasted Light-Red with yellow legs, *substituting white* where the former is black, and are called Smock-Breasted Bloodwing-Piles, the hen to match being golden-yellow in head and neck, striped with white; the back, wings, and tail a clear creamy white; the breast a salmon-red, shading off to a creamy white on belly and under-parts.

The Streaky-Breasted Pile Cock in hackle, back, wing-bows, and shoulder-coverts should be a light ginger-red, the breasts being streaked with ginger markings, the Streaky-Breasted Custard-Pile being a shade lighter, the hens to match also being lighter than the hens belonging to the Smock-Breasted Bloodwing-Pile.

The Marble-Breasted Spangle-Pile Cock should be spotted with red or black in breast, the hackle and saddle feathers red, white at the roots, shoulders red, tail white, more or less ticked with black, the whole bird having a piebald appearance. The hens to match are fawn and white intermixed, both sexes having white legs and beaks.

The Ginger-Breasted Yellow-Pile Cock is tawny or ginger in breast, yellowish-red hackle, red shoulders, white secondaries and tail, with yellow eyes, beak, and legs.

The Dun-Breasted Dun, both cock and hen, are one uniform colour, as described by the name, and have dark eyes, legs, and beaks.

The Dun-Breasted Blue-Dun.—The cock's hackle, saddle, shoulders, and primaries should be a dark blue, the rest of the body and tail a dun colour; the breast is sometimes laced with blue. The hen to match should be a dun colour throughout, the hackle being a shade darker than the body, the breast feathers being laced at times with blue as in the cock.

The Streaky-Breasted Red-Dun.—Cock has beak and legs dark, eyes dark red, breast slate colour with a golden edge to each feather, or striped with gold; hackles golden-red, shading to golden towards the bottom, and striped with slate stripes; shoulders dark red, tail and secondary wing-feathers slate colour.

The Dun-Breasted Yellow-Dun Cock is a dun fowl, with light yellow hackle and saddle, and reddish-yellow shoulders, the rest of the body-feathers dun.

The Blacks are a perfect jet black, both cocks and hens; gipsy faces, black eyes, beaks, and legs.

The Black-Breasted Brassy-Wings are perfectly black, with the exception of a patch of red colour on the wings. These birds have often red faces and eyes, and their legs and feet are of a bronzy colour.

The Black-Breasted Furnace Cocks have dark eyes, beaks, and legs, with various shades of golden-coloured feathers across the back and shoulders; sometimes the neck hackle and wings are tinged with red or golden, the hens often showing a little gold marking on the hackle, but jet black throughout the body.

The Black-Breasted Polecat Cocks are black in body, but have a little more red on back and hackle than Furnaces. The hens are dark or black, with a little colour in hackle.

The purest strains of Whites had white eyes, beaks, and legs; but red eyes, yellow beaks and legs, are now allowed. The former were known as Smock-Breasted Smocks.

The Cuckoo-Breasted Cuckoos are a slaty or bluish-grey ground colour, with distinct bands of a darker shade across the feathers, the cock and hen being alike in colour. There are many and various shades of this colour allowed, the Yellow-Cuckoo having a *buff* ground colour.

The Spangle-Breasted Spangle-Red or Pheasant-Breasted Pheasant-Red Cocks are marked similarly to the Golden-Spangled Hamburg, and the origin of the "Golden Mooney" and "Pheasant-Malay" is generally considered to have rested with this variety. They were a trifle "*soft*" in the Pit, and were in consequence neglected.

The Henny is of various colours, such as Dark-Partridge, Red-Grouse, Wheatens, Greys, Blacks, Duns, Whites, Duckwings, and Spangles, and we have seen good ones of all those colours. They run heavier than the other varieties, but are slower in the Pit. The hens are about the best layers of the Game varieties, and as Table birds they excel, but as a Fancier's Fowl their more or less quiet plumage does not offer the same attraction to the Fancier as the other varieties.

The Muffs are found in all colours, and we have seen good ones of nearly every variety excepting Piles, their characteristic feature being the presence of a growth of feathers on the throat, and extending up each side of the face to the ear. They are undeniably *Game*, and, as a rule, are large and sound-constituted birds.

The Tassells are generally found in the darker colours, taking the name from the presence on the head of the cock of a few feathers growing backwards and upwards, the hens being more developed in this respect, often having a pronounced topknot. They are *Game* birds of the first water, being noted for their fighting capabilities.

THE OLD ENGLISH GAME FOWL CLUB'S STANDARD OF PERFECTION.

COCK.

Head.—Narrow, of medium length; beak, slightly curved, strong at the base; eye, prominent and bright, with quick and confident expression, and alike in colour.

Muff (if any).—To be short, and thickly feathered.

Layerback (if any).—To lie close to the head of cock, extending straight back; in the hen, to be a more pronounced topknot.

Neck.—Rather long, and very strong at junction with the body, the hackle composed of long feathers, covering the shoulders.

Back.—Medium length, broad across the shoulders, tapering towards the tail, the saddle feathers long and flowing.

Breast and Body.—Breast broad, full, and straight; body, medium length, firm, and muscular, convex on the sides, broad at shoulders, and tapering towards the tail.

Wings.—Long, strong, and inclining to meet under the tail.

Tail.—Nearly upright, full, and expanded; sickle feathers abundant, broad, and well curved; main or true tail feathers abundant, broad, with hard and strong quills.

Legs and Feet.—Thighs short and stout; shanks rather long, of medium bone, round and clean; scales, smooth and close; toes, long and spreading, the back toe standing well backward, and flat on the ground.

Plumage.—The feathers strong, hard, close, sound, glossy, and sufficient.

Weight.—Cock, 5 to 6½ lbs.; hen, 4 to 5 lbs.

Carriage.—Bold, smart, the movements quick and graceful, proud and sprightly, as if ready for any emergency.

The whole body to appear symmetrical and muscular, and about an even balance when handled by the sides and the fingers round the thighs.

The hen is similar to the cock in all points of symmetry, etc.

STANDARD FOR JUDGING.

(A perfect bird to count 100 points.)

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head	8
„ Beak	4
„ Eyes	4
„ Neck	10
„ Back	10
„ Breast and Body	15
„ Wings	10
„ Tail	5
„ Legs and Feet	12
Softness of Feather... ..	6
Bad Colour	10
„ on Handling	6
	—
	100

DISQUALIFICATIONS.

Crooked breast, duck feet, whipped or drooping tail, goose-winged, crooked back, wry tail, or any other evident signs of weakness or deformity; any fraudulent dyeing, dressing, or trimming.



CHAPTER XXX.

MALAYS.

THE Malay Fowl occupies a unique position among the older and better known varieties of Domestic Poultry, and without doubt many of our present-day Show varieties owe their existence, in a much greater measure than is generally known or allowed, to this highly characteristic breed. The breed is indigenous to some portions of India, the Mauritius, and Malay Archipelago, though the birds bred and fought in the latter islands differ somewhat to the bird with which we are familiar in the Show pen. In many places in the Malay Peninsula cock-fighting is the common amusement of the people, and actually takes place in the public streets throughout the principal towns and villages, many of the Rajahs keeping strong teams of Malay Fighting Game, engaging men to train the birds for the Pit, and fighting mains for large sums of money. At some of the larger towns mains are fought almost daily in the open street, the spectators forming a ring; the birds are fought with long steel spurs, and the excitement while the fights are in progress is immense. Those that have made bets scream, yell, and jump about frantically, and occasionally a loser or two run amuck, creating further diversion. The breed is fostered to a considerable extent in some of the Australasian Colonies, notably Queensland, New South Wales, and South Australia, but are kept and bred almost without exception for Show purposes, though at the present time, perhaps, there is no breed of Fowls that has so few admirers as the Malay outside of the real Fancier of the variety. It requires an eye thoroughly well educated to their more or less repulsive-looking "points" to see and note their "beauties." At the same time the Malay has played, and will no doubt continue to play, a highly important part in the Poultry History of the World. Indisputably the Malay is responsible for the appearance of one of the finest varieties of Poultry in existence, viz., the Australian Game Fowl. Secondly, the Cornish-Indian Game Fowl is, without a suspicion of doubt, an offshoot of the same breed, and, thirdly, the Modern Show British Game Fowl has also a large dash of Malay blood in its composition. To this may also be added the thousand and one different varieties of Fighting Game used for Pit purposes throughout America and Australia, which one and all possess a large element of Malay blood. From reliable authority the Malay appears to have deteriorated considerably within the past fifty years, and with certainty we can echo that they have done so as far as strong characteristic points are concerned within our own knowledge of the breed, that is, within the past quarter of a century. At the time we mention the Malay was the "Giant of the Poultry World," and was largely used to cross for improving the size and flesh of Table Poultry, the cross with the Dorking, or even Brahma, producing a bird of superlative merit; the quantity and quality of the flesh on breast, wings, and thighs being all that could be desired. The Malay bred pure is also an excellent Table Fowl, but present day requirements rule that the legs are too long, and objectionable on those grounds.

However, there is no gainsaying the fact that the Malay of to-day cannot stand comparison with the Malay of thirty to forty years back in head qualities, size, or shape. At the time we mention it was customary to find cocks weighing 11 to 13 lbs., hens 8 to 10 lbs., but how many of the present day cracks could come nigh those weights, while the prominent and most striking characteristics of the breed have been considerably altered for the worse. We have in a great measure lost the long broad head, and heavy beetling brows. The wattles, ear-lobes, and combs are larger, wartier, and coarser; while the skin of throat and face shows more feather. The neck, thighs, and shanks are now considerably shorter; the breadth across the shoulders is also modified, and the quick finish to the fine, narrow stern is also more or less wanting. The wings and shoulder-butts seem to have lost the substance and prominence of the earlier specimens. The tails are now much broader and heavier in feather, and not carried as they should be; the whole style, shape, and carriage of the breed are altered from the original. The alteration in the type of the Malay may be attributed to two causes—firstly, the difficulty of obtaining good breeding stock of fresh blood (as the Malay cannot be improved by persistent in-breeding like most other varieties), and, secondly,



Black-Red Malay Cock and Wheaten Hen.

from the desire of Fanciers and Breeders to soften down the extremely angular appearance, cruel-looking head, and length of neck, thigh, and shank, which at first notice may appear unsightly, but are all important points, being identified with this breed alone. This fining-down process has been the means of sacrificing to a great extent another important quality of the Malay, that of size. The wonderfully close, hard, spare, lustrous plumage of the old-time specimens was a most important characteristic, but this has also been sacrificed, and the result is a weaker-headed, smaller-bodied, shorter-legged and necked bird, carrying far too much feather, and with a heavy tail, and not of the correct shape.

Another strongly-marked characteristic of the breed is the peculiar gait and swagger, quite unlike any other variety of Poultry; the more typical the specimen is in appearance, the more pronounced is this feature.

The Malay is not now extensively used as a cross for improving Table Poultry, this position being occupied by the Cornish-Indian Game Fowl; but we still know of at least two breeders who for the past season or two have used the Malay cock with Dorking hens, and the progeny have turned out all that could be wished, from a gastronomic point of view. There are, however, many staunch adherents of the breed who season after season try their utmost to breed birds of the true Malay type, gaunt, angular, stilty, and cruel-looking though they may be, so that there is little fear of the breed's extermination. This is as it should be, so that we may hand down to posterity true and worthy specimens of the Malay Fowl. We have stated previously in this Chapter that the Modern Exhibition Game Fowl owe much of their present day excellence in the eyes of their admirers to the Malay. Their extreme length of limb and great reach, sharp-set shoulders, hard, short, close, lustrous plumage, and smart, low, close-set tails, point conclusively to the Malay as the source from which they derived these essential Show points; and, in addition, the tendency that these same Show Fowls have towards square or flat-shinned shanks is further evidence. Again, it has come under our notice that at least one of our most successful Modern British Show Game breeders has bred his winning birds for some years from birds descended from Malays, and also that other breeders have used birds from these mixed strains to perfect their Show specimens.

In breeding the Black-Red Variety, the greatest care *must* be exercised in the selection of the stock cock or cockerel. He should be short, hard, sound, and lustrous in feather; his hackle, back, shoulder coverts, wing-bows, and saddle, a rich dark, solid red; his breast, wing-bars, and tail, a brilliant greenish, glossy black. His tail should be carried low; the sickles curved but slightly, of moderate length, the sickles and side hangers tapering off to a fine needle-point. He should have a long, broad head, heavy brows (the heavier the better), close-set, firm comb, and small wattles (throat and face as bare of feathers as possible), a long, nicely-curved neck, broad, prominent, and well-set shoulders, long, stout, muscular thighs, and long, strong, straight, yellow shanks. The hens to match may be either wheaten, partridge, or the lighter shades of cinnamon, and should be good in head points, close and short in feather, good in shape, style, and as long in limb as possible. Birds of this description will produce a fair proportion of good progeny. To breed pullets it will not matter so much if the cockerel selected is a trifle duller in colour, and has a few brown feathers in the breast and fluff, though the cockerels from this mating would come almost brown breasted. This mating, of course, would only be successful if the hens mated with him were up to Standard requirements in head points, style, shape, and shortness of feather.

In breeding the Ginger-Breasted Variety, much greater latitude may be taken in the mating of the stock birds, as in fact they are by no means nearly as difficult to breed to Standard requirements as either the Black-Reds, Piles, or Duckwings. Frequently a few Ginger-Breasted birds will be produced from the very best *Black-red* stock, the breed having a tendency to revert to the original or Brown-Breasted type; at the same time there are few specimens of the Black-Reds equal to the Ginger-Breasted birds; the latter, as a rule, being exceptionally good in closeness, hardness, and shortness of feather, and their tail sickles are of a bronzy hue, narrow, wiry, and very pointed. In the Show pen in this Country, colour is not nearly of so much importance as head properties, size, reach, and style.

Piles rank next in value to the Black-Reds and Gingers, and without doubt they are very striking and handsome. They are, however, very difficult to breed true to colour, the hens generally being

heavily marked on back and sides of wings, the cocks being heavily marbled or splashed with brown or rusty feathers on the breast and fluff. The Piles can, however, be considerably improved in feather by crossing with the brightest Black-Reds, and the cocks should resemble the Black-Red in every particular (with the exception of substituting *white* where the Black-Red is *black*, being red where he is red).

Duckwings are quite the equal of any of the other colours in appearance if up to standard of colour, etc., but there is an extreme difficulty in breeding the cocks to the desired state of perfection, and it is frequently necessary to cross with the Black-Red (choosing the brightest Black-Red obtainable for the purpose) to keep up the clear and distinct markings. Probably no variety requires greater study and attention in breeding than the Duckwing cocks. The hens are not nearly so difficult to breed to Show Standard, as breeding from Duckwings on both sides will mostly throw pullets good in feather properties.

Blacks and Whites require no further description than pure black or pure white, and if up to the Standard of type, carriage, etc., are most attractive.

The Malay is a fowl of very uncertain temper, and it is not wise to put the cock up with the hens until they are near laying (and more so if they are kept in an at all confined space), as the cock frequently turns vicious with the hens, and will thrash and bully them unmercifully. The hens themselves, being termagants, will often turn on one another, so must be watched. The uncertainty of temper or viciousness is a great drawback to allowing the Malay hen to hatch, they, as a rule, being so very irritable and cruel in disposition that on the slightest provocation they will kill the chickens as they emerge from the shell. The chickens when from six to ten weeks old are most unsightly-looking objects, being almost devoid of feathers for that period, yet it is astonishing how very hardy they are and easy to rear. They should be fed in much the same manner as described for Game Fowls in Chapter XXVIII., and, as in other breeds where size is demanded, this latter depends on the amount of food that can be got down their throats. Malay Fowls and chickens have the digestive powers of an ostrich, and little comes amiss in the way of food to them. The greatest difficulty likely to arise in the rearing of Malay chickens is the breed's tendency to leg weakness, both cockerels and pullets; but immediately this is noticed daily administrations of half-teaspoonfuls of "Parrish's Chemical Food" will quickly assist them to pull themselves together, and, should any of them have a difficulty in fledging properly and quickly, a little linseed meal and sulphur, mixed in their soft food *every day, sunny morning*, will assist them considerably in going through the ordeal.

The following remarks are kindly added by Mr. Wm. Jolly, of Wayville, Adelaide, S.A., who writes:—"I am glad of the opportunity afforded me of advocating the claims of Malays, because I think that this Colony (South Australia) may fairly claim to be the stronghold of the breed in the Australasian Colonies, and, consequently, we are in a position to understand and appreciate them. In proof of which, I may mention that I had no less than sixty-eight pens to adjudicate upon at our S.A. Poultry and Dog Society Show in August last, and over forty at the Royal Agricultural Society's Show the following month. The origin of the breed is not a matter of sufficient moment to discuss in a work devoted to practical Poultry keeping. Whether it is, as one naturalist asserts, the domesticated descendant of *Gallus Giganteus*, or, as another argues, its ancestor is the *Gallus Bankiva*, we may, I think, leave to scientists learned in the origin of species to decide. The original home of the breed is, however, not so difficult to fix, as the fact is well-established that a bird, similar in all essential characteristics to the Malay, is still the common Fowl of India and the Malay Peninsula, and when we bear in mind that the Easterns, as a rule, pay no attention to the improvement of their birds and animals, and that the result of such neglect, when kept in a state of domestication, invariably produces a reversion to the original type, we may take it for granted that the natural habitat of the breed is correctly located. The Malay in its general characteristics is quite distinct from other breeds. The head of the cock is broad, fairly long, and carried very high. The eye is a light yellowish colour, with overhanging eyebrows; beak, stout, and hooked something like a parrot's; face, red and bare of feathers; comb, like the half of a small walnut, set well forward towards the beak; neck long, and hackle short and scanty; shoulders, square across the butts, and standing prominently out from the body; wings, short and strong; body, large at the shoulders, tapering

slightly towards the tail ; tail, drooping, and held closely together, not fanned ; thighs, long and muscular, standing prominently forward ; shanks, stout and straight ; toes, long and strong ; carriage, upright and fearless. The same description applies to the hen, excepting that she does not droop so much behind as the cock, the tail being carried somewhat higher. Cocks should weigh from 10 to 11 lbs., and hens 8 to 9 lbs. ; cockerels and pullets, about 1 lb. less.

"In colour, there are Black-Red, Brown-Red, Blue-Red, Duckwing, Pile, White, and Black. We do not get the same distinctness in marking as in the corresponding colours in British Game, and Judges, as a rule, recognise that a breed not kept specially for its beauty, but mainly for its useful qualities, should have some latitude allowed in respect to slight defects in colour.

"The following is the Schedule of Points for Judging which I have drawn up for my own guidance when officiating in that capacity :—

SCHEDULE FOR JUDGING MALAY FOWLS.

Head and Comb	10
Glossiness and Hardness of Plumage	14
Shoulders	10
Tail	8
Colour	10
Legs	5
Size	16
Style and Symmetry	15
Condition	12
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	100

"The Malay is my favourite breed of all the different varieties I have kept since I took to 'feathers' about twenty years ago. Their upright, bold carriage, and fearless disposition, and the 'individuality' (if such an expression is allowed in regard to Fowls) of the different members of the flock have always given me more interest in Malays than in other breeds, which are merely pretty or useful Fowls. But they have other and more important features to recommend them. As a table Fowl, I think they are equal to many of the breeds more sought after for that purpose, and, if the matter could be thoroughly sifted, I believe, from the comparative scarcity of Malays, that many of those who assist in 'booming' other breeds for table purposes have never tasted a Malay cockerel or pullet of eight or nine months old, otherwise I fancy they would alter their opinion. There is no other Fowl, to my knowledge, which possesses such a power to improve almost every breed with which it is crossed in edible qualities, size, and constitution, and in this statement (at the risk of running against a 'snag') I do not except the widely-advertised Indian Game. The quality of each as a table Fowl I consider about on a par ; but the size and stamina, with power to transmit its own characteristics, are certainly on the side of the Malay. A few moments' consideration must convince any unbiassed mind of the truth of the latter remark, from the fact that the Malay is one of the oldest known breeds, whilst the Indian Game has been 'made' at a comparatively recent date. A Malay cock running with the undersized mongrels usually found in the ordinary farm-yard will speedily be found to have improved the size and quality of the stock. I had positive proof of this some years back. I put some of my cockerels to 'walk' in the farm-yard of a friend three or four years in succession ; and, on a recent visit, although no new blood had been introduced for several seasons, I could still see the result in the superiority of type as compared with the ordinary barn-door Fowls. With reference to the breeding, feeding, and general management of Malays, it is hardly necessary for me to offer any remarks, as the same care and attention are needed in these matters as with any other breed. Still, it may be as well to mention that, as a rule, they have remarkably good appetites, and the growing chicks thrive all the better if their food is changed occasionally. You cannot expect to have cockerels to weigh (as many of our best strains do) one pound in weight for every month of their age up to nine or ten months unless they are fed well, and often.

Strictly, from a Fancier's point of view, the uncertainty in breeding true to colour is a somewhat unsatisfactory trait in the Malay. But the class 'Malays—any other colour,' which is always found in our S.A. Poultry and Dog Society's schedule, I look upon as an important factor in preventing that deterioration which results in breeds in which hard-and-fast rules as to colour and markings obtain. In most breeds Fanciers have, no doubt, found, to their great annoyance, that the largest and most vigorous cockerel of the year has some defect in colour, which precludes the possibility of breeding from him, for fear of his transmitting the objectionable feature to his offspring. But, so long as the class for any other colour is maintained in the Malay section, the Fancier can both show and breed from his best and strongest birds, notwithstanding defects in colour. Our climate appears to be very suitable to Malays. They seem to revel in our bright, dry, summer weather, and grow remarkably fast during that season. Chicks hatched in August or September (unless the season is very late) appear to thrive better than those hatched earlier. Some of our breeders favour bringing out the chickens in the Autumn, as soon as the hens begin to lay after the moult, and although I have seen some splendid birds which were hatched at that time, I noticed that most of them had more feather, and of a looser character than a good Malay should carry. This defect I attribute to the fact that Nature adapts itself to the wants of its creatures, and kindly clothes the chicks for the winter, instead of allowing them to shiver through it in the almost naked state in which they are found during the summer. I am afraid the number of Malay Fanciers will always be somewhat limited, because their peculiar appearance and cruel disposition are not calculated to charm anyone of æsthetic tastes. One's first experience with them is also very likely to be very discouraging. You probably go out to feed the chicks in the morning, and discover them scattered about in odd corners, scalped and blinded for the time, as the result of a free fight all round, and this with chickens only four or five weeks old. But, if you can put up with their peculiarities for the first season, or until you have tested their quality on the table, and the rich flavour of their eggs, I think you will be quite disposed to continue keeping them—at least such has been my experience, and that of most others of my acquaintance."

SCHEDULE FOR JUDGING MALAYS.

GENERAL CHARACTERISTICS OF COCK.

Head and Neck.—*Beak*, stout at base, strong, and hooked; *Comb*, small, set well forward, shaped like a half walnut, as free from irregularities as possible, firmly set on the head; *Skull*, very broad; *Eyes*, deep set; *Eyebrows*, overhanging, and beetle-browed, giving a morose and cruel expression; *Wattles and Earlobes*, small, the skin of the throat being bare of feathers for some distance down the neck; *Neck*, long, carried very upright, with slight but characteristic curve; *Hackle*, full at base of skull, otherwise very short and scanty.

Body.—Very wide and square at shoulders, and tapering to the tail; *Shoulders*, very wide, prominent carried well up, and usually bare of feathers at the butts; *Back*, long, sloping, and rather convex in outline; *Saddle*, narrow and drooping, the feather short, and scanty like the hackle; *Breast*, deep and full, generally bare of feathers at point of breast-bone, the under-part of body presenting a clean cut-up appearance to vent.

Legs and Feet.—*Thighs*, long, stout, strong, and very muscular, with but little feather, leaving the hocks perfectly exposed; *Shanks*, long, massive, and beautifully scaled, flat at hocks, and gradually rounding to setting on of spurs, a downward curve in spur to be preferred; *Toes*, long, straight, and strong, with powerful talons, the back toe to extend straight back, and lie close to the ground.

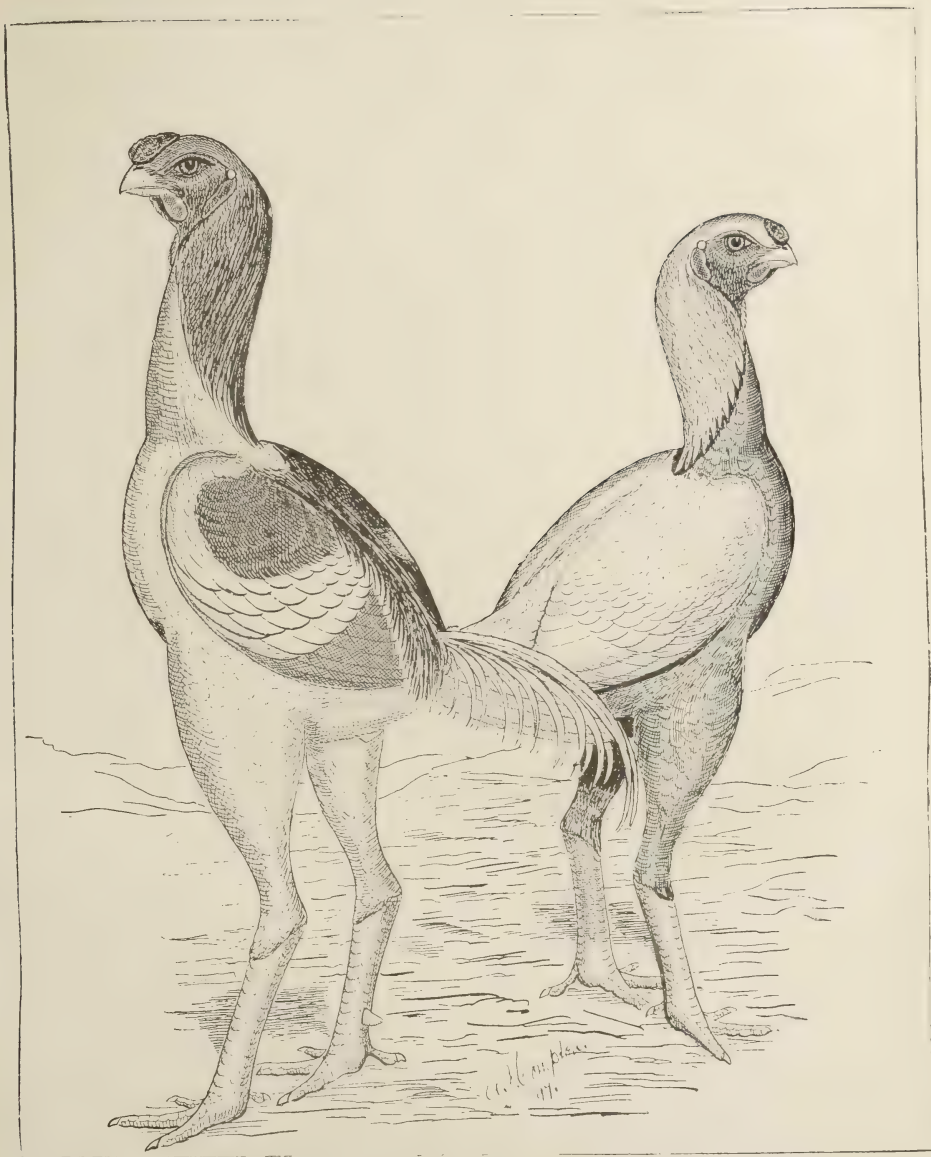
Tail.—Drooping, not whipped, of moderate length, sickles narrow, wiry, very pointed, and slightly curved.

General Appearance.—Tall, commanding, fierce, and gaunt looking.

Carriage.—Very upright, high in front, and drooping behind.

HEN.

The hen is the *fac-simile* of the cock in general shape, head qualities, etc., making allowance for difference in sex. She should, however, carry her tail a little higher than the cock, and a trifle fuller Weight—Cocks, from 10 to 13 lbs.; hens, from 8 to 10 lbs.



Red-Pile Malays.

POINTS OF COLOUR IN BOTH SEXES.

Beak.—Yellow, or slightly stained with horn colour.

Comb, Face, Wattles, Ear-lobes, and Throat.—Rich bright red.

Eyes.—Pearl or yellow.

COLOUR OF BLACK-RED MALAY COCK.

Hackle, Saddle, Back, Shoulder Coverts, and Wing-bows, deep, dark, rich solid red : *Breast, Wing-bars, and Tail*, glossy greenish-black ; *Secondaries*, when closed, deep bay or chestnut.

The hens to match are of various shades of wheaten to dark cinnamon, or even partridge marked, with hackles of a much deeper and darker shade than their body colour, with the exception of the Partridge hens, whose hackle feathers are edged with dark yellow.

Brown-Red Malays.—The cock is a dark brownish-red in hackle, back, wing-bow, and shoulder-coverts : the breast, under-parts, and tail, of a deep bronzy shade ; the wing-coverts and secondaries, a bronzy-black. The hen to match, a deep bronzy-black throughout the body, with neck hackle slightly tinged with coppery-coloured streaks.

Blue-Red Malays.—The cock of this variety is marked similarly to the Pile, substituting, however, blue or slate colour when the Pile is white, being red where he is red ; the hen to match being blue or slate coloured in body, the breast and hackle feathers having a yellowish tinge.

Black Malays.—Both sexes are a rich metallic greenish-black throughout the whole plumage.

White Malays are pure white throughout the plumage, the purer and clearer the white the better.

Pile Malays.—The cock is red where the Black-Red cock is red, and white where the Black-Red cock is black, the purer the white, and more distinct the red the better. The hen to match as similar in colour as possible to the Standard-coloured Pile Game hen.

Ginger-Breasted Malays.—The cock is a duller shade in top colour than the Black-Red, with breast of a ginger colour, or mottled, the tail sickles being of a bronzy colour, with shafts of a lighter shade, the hens to match being the dark cinnamons.

Duckwing Malays.—The cock should be a shade darker in top colour than the Golden-Duckwing Game cock, the hen also running a shade darker than the Golden-Duckwing Game hen.

A bird perfect in head points, shape, style, size, colour, and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and Comb	...	...	..	...	...	...	...	...	15
Want of Shoulder	...	...	...	...	...	...	...	...	15
Want of correct Curves and Carriage	...	...	...	...	...	...	...	...	15
Want of Reach and Stiltiness	...	...	...	...	...	...	...	...	10
Want of Size and Bone	...	...	...	...	...	...	...	...	10
Feather Long, Broad, or Soft	...	...	...	...	...	...	...	...	10
Want of Lustre and Condition	...	...	...	...	...	...	...	...	10
Bad Feet and Legs	...	...	...	...	...	...	...	...	5
Bad Tail	...	...	...	...	...	...	...	...	5
Faulty Colour	...	...	...	...	...	...	...	...	5

100

DISQUALIFICATIONS.

Croked breasts, duck feet, wry tail, big, spreading triple, or single combs, red eyes, bow legs, knock-knees, or any other evident signs of weakness or bodily deformity ; legs other than yellow ; any fraudulent dressing, dyeing, or trimming.

Size in Malays should chiefly be judged by measuring the bird while extended, from point of beak to tip of toe, taking as an ideal thirty-six inches for the cock, deducting five points for every two inches deficiency.

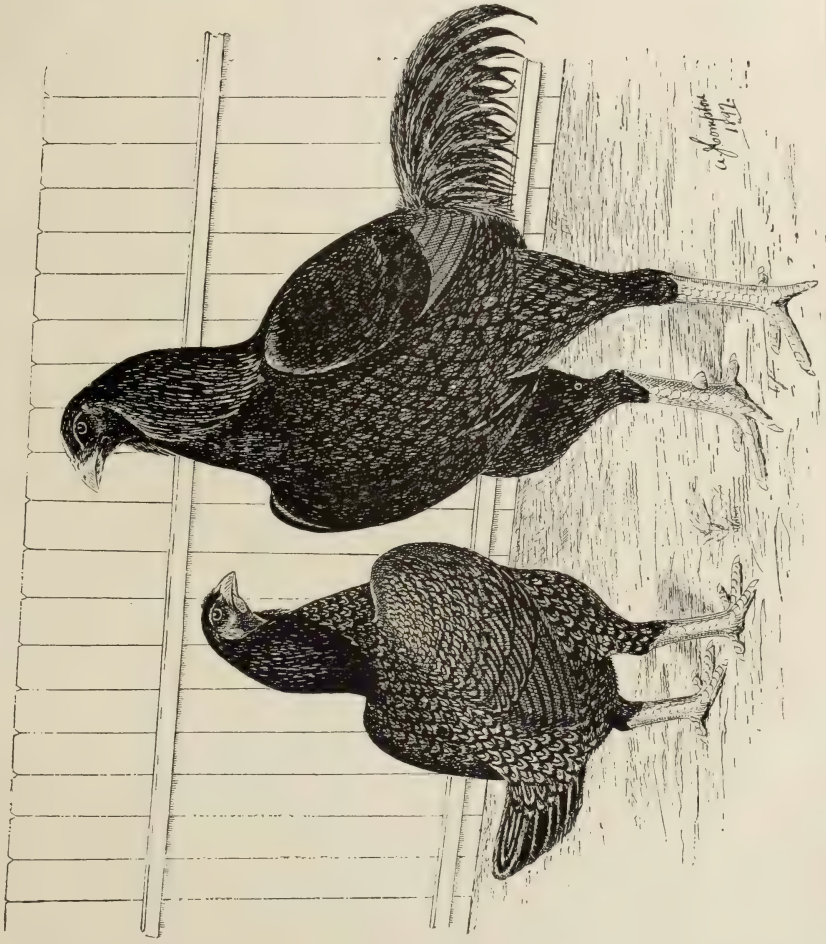
CHAPTER XXXI.

CORNISH-INDIAN GAME.

THIS now distinctly characteristic breed of Poultry has lately come to the front with giant strides, and is now extensively bred and exhibited throughout Great Britain, America, and Australia. Possibly no breed of Poultry yet introduced to the Australasian Colonies has awakened such enthusiasm among their admirers and the general public as the "Indian Game," the first importation being made by Mr. W. H. Goodman, Stockton, N.S.W., followed very shortly afterwards with another by Mr. G. O. Duncan, of Melbourne, Victoria, and among the more prominent of those who have so pluckily invested in the best stock procurable, and spent large sums of money in importing winning specimens from Great Britain, are the names of Messrs. C. Boggio, Melbourne, Victoria; W. H. Osborn, Parkside, Adelaide, S.A.; H. Montgomerie Hamilton, Harold Cadell, and J. W. Pender, N.S.W., and it is solely due to the enterprise of such Fanciers that the breed now occupies such a foremost position in the ranks of our best and most valuable varieties of Domestic Poultry. Originally confined to the Counties of Cornwall and Devon (England), they were chiefly bred by the miners for pit purposes, though they never possessed the speed and striking power of the best old style British fighting stock. They were formerly known as Cornish Game, a name now generally superseded by that of "Indian Game," a misnomer, for it would more appropriately apply to the variety of Poultry commonly called Aseels. It is now recognised that they were the result of mating Aseels and Malays, but the perseverance of subsequent breeders has produced a race so superior in many ways that it now occupies one of the highest positions, both for Show and practical purposes, being remarkable for its superlative table properties, the beauty of its form and lustrous plumage, and its adaptability to all climates and surroundings. The first of these is, no doubt, their great recommendation to the Poultry Farmer, either pure or crossed with any other variety. They are scarcely excelled in this respect, and the chicks are extraordinarily hardy, easily reared, and grow at a good pace. The hens cannot be classed as good layers, but they are excellent sitters and mothers.

In general appearance an Indian Game is a cobby, compact, symmetrical Fowl, very active and vigorous, with short, hard, and very lustrous, but not scanty, plumage. The head is moderate in length, stout and thick; the beak, strong and stout at the base; the eyes are pearl or yellow in colour; and the face has a very intelligent and fearless expression, without the beetling brow and cruel look of a Malay. The comb is pea, or triple, but the cocks are generally shown "dubbed" (that is, the comb, wattles, and deaf ears are removed by the aid of a pair of scissors), though some would much prefer to see them exhibited in the natural state, and there is no great obstacle to prevent breeding them with small, neat fitting combs, similar to the Brahma's.

The cock's neck hackles are rather short, and of a rich glossy green-black, with a crimson coloured shaft, and narrow crimson centre to the feathers. (Fig. 78A, 1). The breast is very deep, full, and well rounded, and of the brightest and glossiest greenish-black colour; the shoulders broad, the shoulder-butts very prominent, and with great substance. The back is flat (but not hollow between the shoulder blades at the base of the neck), the whole body having a stout and compact appearance. The wings are short, well clipped up, and high at the shoulder-butts. The colour of the back, saddle, and saddle hackles are a mixture of glossy, greenish-black and brown-crimson. The wing-bows glossy, greenish-black, slightly intermixed with crimson of a deep, dark shade. The wing-secondaries, when closed, a deep bay. The tail is carried slightly drooping; the sickles and secondary sickles fairly narrow, rather short, and well curved, and of a sound, glossy, greenish-black colour; the whole of the plumage being hard and close, and exceedingly lustrous. The beak is yellow, or yellow striped with horn; the shanks and feet, a bright orange yellow. The hen is similar in shape to the cock, but in comparison, even more cobby and compact. The whole



Laced Cornish Indian Game.

The property of Mr. W. H. Goodman, Stockton, Newcastle, N.S.W.
HEN—Winner of 1st Prizes at Newcastle and the N.S.W. P.P.C. and
D. Soc., and 2nd at the Poultry Club's Record Show, 1897.
COCK—1st Prize at Newcastle, N.S.W. P.P.C. and D.
Soc., 1897, and the Poultry Club's Record Show, 1897.

ground colour of the plumage is a deep golden bay, each and every feather, with the exception of the neck hackle and true tail, being laced with either single or double rows of metallic, glossy green-black. (Fig. 78A, 2, 3, 4). This lacing follows the shape of the feather, the neck hackle being glossy greenish-black, and the feathers of the true tail as dark as possible.

In breeding this variety to feather points, it is best to mate up separate breeding pens for the production of the sexes. To breed cockerels, a Standard cock or cockerel should be used, mating him with hens of the correct shape and style, good shoulders, and strong in bone, with bright, sound ground colour, and with lacing rather heavy; but to breed pullets, a cock with rather too much crimson in the hackles may be mated with hens rather lighter in ground colour and lacing than the Show hen, or a Standard coloured cock may be mated with one or two hens of each colour, and a fair percentage of chickens result. The latter method is not so certain as if separate pens are used to produce the sexes, but will answer in cases where accommodation is limited, the great drawback to the latter plan being the fact that it is much more difficult to breed both sexes in any fair proportion up to Standard requirements from the one pen, no matter how



FIG. 78A.—1. Hackle Feather of Laced Cornish-Indian Game Cock. 2. Breast. 3. Back. 4. Cushion Feather of Laced Cornish-Indian Game Hen.

carefully mated, as it must be remembered that the first mating is scarcely likely to produce birds of both sexes of high merit, so that, where practicable at all, it will be found far better to have separate breeding pens to produce cockerels and pullets respectively, at the same time keeping the two strains as far apart as possible, recognising one as the *cockerel* strain, and the other as the *pullet* strain, though this is only necessary when the birds are bred for Show competition.

In rearing Indian Game chickens bone meal should be added to the soft food once or twice a week at least, to promote and encourage the development of bone. A light-boned Indian Fowl looks weedy, and for breeding is almost useless. During dry weather, a little sulphur added to the soft food will assist considerably in helping them to attain their adult plumage quickly, and the cockerels should also have a little more stimulating diet when they are "shooting" their tails. An Indian Game chicken must be kept growing. Once they stop, they rarely attain any size. This variety, and also the Malay, do better on a larger proportion of grain food for their daily ration than most other breeds, and on this account alone are a breed of Poultry suitable to those who cannot spare the time required in the management of other Fowls.

The Indian crosses well with either the Dorking, Brahma, or Langshan, the birds so bred being of extra quick growth, and high-class table qualifications. In mating up pens for breeding table Poultry, the Indian

Game cock should be used with hens of the different varieties. Crossed with Dorking hens produces the finest quality of flesh, but not of such rapid growth and ultimate size as either the Langshan or Brahma cross. In any case, the sexes should be separated at about three or four months old, as they will then grow quicker, and the flesh will be considerably improved in flavour.

There is very little trouble in preparing them for Exhibition. If the face, legs, and feet are well washed with soap and warm water, and the bird well smoothed down from head to tail with a silk handkerchief, very little else is needed if they are in good health and condition; and, being of such wonderfully sound constitution, they stand an amount of showing that would upset many other breeds. They should, however, be accustomed to the Show pen, and trained a little to make them show themselves off to advantage.

To Mr. Harold Cadell, of "Wotonga," Beecroft, N.S.W., we are indebted for the following notes on the breed. Mr. Cadell states:—

"I find 'Indian Game' wonderfully hardy as chicks; grow fast, and seem to be equally indifferent to heat or cold. Chickens hatched in June and July were out and about, no matter how frosty, and thrive splendidly. This season some chickens hatched in November and December have come on wonderfully, so the Indian Game can be considered as suitable to any part of Australasia. As layers the hens are a trifle better than British Game (but no one who breeds Poultry for eggs alone should keep any variety of Game), laying a brown egg of various shades of colour, of good size, and with a good strong shell. I find them vary greatly as layers—some good, others failing in this quality, while some are easily broken off from broodiness; others are more obstinate than the proverbial pig. As sitters they are gentle and quiet, but two hens are better not set in the same house. As mothers I find them excellent, great foragers, taking great care of their chickens, with which they remain a long time, a point in their favour for early broods. The cockerels do not quarrel if run together, and although, without doubt, Indian Game can fight, and *will* 'stand steel,' they are not nearly as pugnacious as other Game Fowls. Their superiority over all other kinds of Game for crossing is well known, and this position has been gained because they are the *only* Game Fowl in which extreme length of thigh and shank is not a point of excellence. I fear, from the trend of Judges and so-called Judges, who say an Indian Game hen *must be double laced*, at the same time ignoring size, shape, and type—the three cardinal points of an Indian Game—that we shall see Indians bred alone for feather, and their chief characteristics spoilt. Certainly double lacing is handsome, but I much prefer a 'blocky' single-laced hen to a weedy, fine-headed, light-boned one, no matter how well laced. An even ground colour is another, and, to my mind, more important point than double lacing. We must have a warm chestnut ground colour, a 'clayey' ground colour being very objectionable.

"In cocks heavy, highly-carried tails are a fault to be guarded against. The correct tail carriage is 'slightly drooping.' This is a point many Australian winners fail in. They don't want a Malay tail in scantiness, but a medium-sized tail with plenty of *narrow* sickle feathers, fairly well curved. To my eye a high tail is a great blemish. In both sexes our Australian-bred birds have plenty length of leg—rather much so. Mind, I do not advocate a squat fowl, but certainly a fowl low on the leg, with broad shoulders and broad breast—a fellow that looks rather small until handled, then feels like lead. Another point often overlooked in them is the feet, especially the hind toes. Many birds I have noticed among the winners have been duck-footed. Twisted hackles are a blemish, but one seldom sees a cock that is not more or less so; and if his hackle is of a good lustrous greenish-black, with the crimson shaft well defined (a solid-coloured hackle being very objectionable), we must be thankful for small mercies. In both sexes the iridescent sheen has to be seen to be appreciated. No fowl has such a wealth of colour in the feathers as an Indian Game in good health and condition."

For the following additional notes on this variety, we are kindly indebted to Mr. W. H. Goodman, of Mitchell Street, Stockton, Newcastle, N.S.W. Mr. Goodman writes:—

"I have much pleasure in giving you a few notes on Indians. I think I may safely claim to have been the first to introduce this very excellent breed into the Australasian Colonies. I imported the first trio in November, 1880. These landed in very fair condition, but, unfortunately, the cock died after being three

weeks in my possession. This loss was all the more severe, as he was undoubtedly a good specimen. The trio were from Pomeroy's yard. I exhibited the two hens at the July Show (1890) of the N.S.W. P.P.C. and D. Society, and they were the chief attraction. I then sent for two pairs (two cocks and two hens) from Paynter's yard. From one of these latter importations and one of the first hens I bred the old 'Veteran,' which in my opinion was the best Indian Game cock ever bred in the Australasian Colonies. The breed has always been a great favourite with me from boyhood. In those days my father kept an Indian Game cock running with common hens to breed young stock for market, and I well remember the fine class of Table Poultry my parents took to the market for sale at Christmas time, and, after their return, to hear the high price obtained for the birds. The Indian Game are in my eyes the best of all Poultry, their chief value being for the table, in which quality they are superlative; and if our Farmers or those Poultry Breeders who produce stock for market purposes were to cross their flocks with a good stamp of the Indian Game, the miserable, scrubby-looking specimens of Market Poultry now offered for sale would quickly become a thing of the past. The Indian Game crossed chickens are wonderfully hardy, quick growers, cost no more to keep than the veriest mongrels, and at the same time have a very presentable appearance (invariably tending towards the type of the Indian), and when held in the hand feel like a lump of lead, not a mere mass of feathers and bones. I am confident that when once the true value of the Indian Game as the best of all crosses for improving to a table model the ordinary run of barnyard or Market Poultry is recognised, no other cross will ever be used if stock is bred solely for table requirements. From a Fancier's point of view the Indian hens, in the beauty of ground colour and accurate metallic markings (the whole forming the hardest and most lustrous plumage found on any variety), offer the greatest attraction, and I know of no other variety that can excel them in these particulars. As layers, the hens cannot be classed with the Leghorn or Minorca, but, if kept in fair condition and not allowed to accumulate undesirable fat, they will lay a goodly number of eggs during the year. But it is as sitters and mothers that they stand supreme, being excelled by no other variety of Poultry. Though the Indians can and will fight to the death, they are of a very tame and confiding disposition, and do not look for fight like the other Game varieties. Another trait in their character is that no difficulty is experienced in keeping them in confinement, a much smaller space sufficing for their needs than would be generally supposed, though at the same time, where free range can be given them, a great saving in care and attention is secured. My ideal weight of an Indian cock is from 11 to 14 lbs., hens from 7 to 9 lbs., and I prefer a dark (almost black) pupil to the eye, and a yellow ring around it. In the lacing of the hens I decidedly prefer double lacing if perfect, but at the same time have found it even more difficult to breed single laced hens, and these latter invariably run much richer in ground colour. The colour of the eggs varies from a light tint to quite a dark one, with a slight greenish tinge. The sun has an effect in dulling their plumage, but not nearly as much as White Leghorns or other light-coloured varieties of Poultry. Another point I would like to warn beginners of is that of not breeding from a cock that has a twisted hackle, unless he is extraordinarily good in other points. Again, another point not to be overlooked is the cock's tail. A very heavy-tailed cock should be avoided for the breeding pen, and our Australian-bred birds fail mostly in this point, as a rule having far too much tail. The tail of the cock should not be *long*, but a fair amount of it, and not carried too drooping as in the Malay."

GENERAL CHARACTERISTICS OF THE COCK.

Head and Neck.—Head, rather long and stout, denoting strength, slightly heavy-browed, but not beetling or scowling; skull fairly broad. Neck, nice medium length, and nicely arched.

Beak.—Yellow, striped with horn colour; extra strong, and a trifle curved, stout at base, giving the head a powerful appearance.

Face.—Smooth and fine in texture, throat and face being dotted with small feathers.

Comb.—(If undubbed), pea or triple, small, well set on the head.

Ear-lobes and Wattles.—Rather small, and of a rich bright red in colour.

Eyes.—Pearl or yellow; bright and full in expression.

Hackle.—Short, but sufficient to cover the base of the neck, but not flowing over the shoulders.

General Shape.—Body, round, muscular, and stout; wide at shoulders, with wing-butts showing prominently, body tapering towards the tail.

Back.—Broad and flat, but not hollow between the shoulder-blades.

Breast.—Wide, deep, prominent, and well rounded.

Wings.—Short, well tucked up, and carried high in front.

Legs.—Strong and thick, with well-rounded and muscular thighs of medium length.

Shanks.—Medium length, well scaled.

Toes and Nails.—Toes of good length, well spread; the hind toes well extended and flat on the ground, nails neat and well finished.

Tail.—Medium length, with plenty of narrow side-sickles and coverts; the tail carried slightly drooping, and fairly close.

Size.—Cocks, 9 to 12 lbs. or more, if symmetry is not sacrificed.

General Appearance.—Powerful, sprightly, active, and vigorous, and plumage cannot be too hard and close.

Carriage.—Upright, commanding, and courageous, the back showing a good incline towards the tail.

Colour.—Breast, body, thighs, and tail, a bright, glossy, greenish-black; neck hackle and saddle hackle, glossy green-black, with a deep crimson shaft and centre to the feathers; back, shoulder-coverts, and wing-bows, glossy green-black, slightly intermixed with dark crimson; wing-bars, bright, glossy, greenish-black; wing-secondaries, when closed, deep bay.

The hen is similar to the cock in all points, making allowance for difference in sex, thus appearing even more cobby and compact. The ground colour of the body is a lovely bright golden bay, each and every feather being laced accurately with metallic, glossy green-black, as if embossed. This lacing may be single or double; in the latter case, the lacing showing a clear margin between of golden bay, the lacing following the contour of the feather, the shafts of the feathers running a trifle lighter bay towards the base, merging gradually into the ground colour. The neck hackle and main feathers of the tail are as black as possible, the hackle having a brilliant greenish sheen.

SCHEDULE FOR JUDGING CORNISH-INDIAN GAME.

(A bird perfect in shape, style, size, colour, eyes, legs, and feet, and in perfect condition, to count 100 points.)

POINTS TO BE DEDUCTED FOR DEFECTS.

Weak or Snipey Head	...	...	...	...	...	...	...	...	...	5
Bad Beak	...	...	...	...	...	...	...	...	...	5
Red Eyes	...	...	...	...	...	...	...	...	...	5
Long Thin Neck	...	...	...	...	...	...	...	...	...	10
Hollowness between the Shoulders	...	...	...	...	...	...	...	...	...	10
Deficient Breast	...	...	...	...	...	...	...	...	...	10
Long Body	...	...	...	...	...	...	...	...	...	10
Flat Sides	...	...	...	...	...	...	...	...	...	10
Badly Carried Tail	...	...	...	...	...	...	...	...	...	10
Deficiency of Colour or Markings	...	...	...	...	...	...	...	...	...	10
Softness, or too much Feather	...	...	...	...	...	...	...	...	...	10
Bad Toes or Feet	...	...	...	...	...	...	...	...	...	5

100

FATAL DEFECTS.

Crooked breast, crooked back, wry tail, squirrel tail, duck feet, legs any other colour than yellow, any evident sign of weakness or deformity.

DISQUALIFICATIONS.

Any fraudulent dyeing, dressing, or trimming, other than the dubbing and dressing of heads of cocks.

CHAPTER XXXII.

AUSTRALIAN GAME (MODERN TYPE).

THE major breeds of Poultry derive their names from the localities from which it is generally supposed or believed they sprang, so that the breed on which we are now treating, being a purely Australian production, is aptly named the "Australian Game Fowl." In the earlier period of its history it was closely identified with sport, and was bred solely for the purpose of cockfighting, but the old order of things became completely changed by the advent of Poultry Shows, and one now sees in the Show pens birds right worthy of the proud and national name they bear. To the many and enthusiastic admirers of the breed, and they are legion, there is no variety of the Game Race held in such high esteem as the modern production, and we very much question if there is a single variety of the Game Race its equal in appearance, strength, courage, indomitable pluck, and generally economic qualities. Their beautiful plumage, of the hardest and glossiest possible character, accompanied with such perfection of proportion in physical contour, places them on the very highest pinnacle in the Poultry World. Their graceful carriage and splendid action exhibit their highly-bred character to full advantage, and there is no breed of Fowls extant that can "fill the eye," from an artistic point of view, to the same extent as the Modern Australian Game Fowl. Within the past fifteen years the breed has undergone much change, certainly and conclusively owing to the decline of cockfighting, and to the growth of Show competition in lieu thereof, though at the same time their main characteristic, *that of being game to the death*, has not been sacrificed in the slightest degree. Of course, like many other breeds of Poultry, one often notices exaggerated specimens exhibited, and this breed has probably suffered more by the incompetency or ignorance of Judges than any other, in many instances the Judges possessing little or no knowledge of the breed, awarding prizes to different specimens which had nothing in common; but, thanks to the energy and perseverance of a number of staunch adherents, backed up by the valuable aid of the Poultry Societies of N.S.W., a definite Standard has now been drawn up, which will materially assist in bringing the breed more prominently into notice throughout the world.

That there is no variety of the Game Tribe more typical in appearance, and none other which possess such iron constitutions, is an undoubted fact; and the present breeders of the Australian Game Fowl owe a lasting tribute to the memories of those men who many years back devoted much time and patience to the origination and improvement of this magnificent breed of Poultry.

The Hawkesbury district (N.S.W.), at the present moment (and for many years past), is, undoubtedly, the headquarters of the Australian Game Fowl. The majority of the farmers and settlers in that portion of the Colony swear by them for their absolutely unequalled economic qualities, very few specimens of other breeds of Poultry, with the exception of a sprinkling of Malays, being found in the locality. It is a common occurrence, at the annual fixture of the Hawkesbury District Agricultural and Horticultural Association, to find over 300 specimens of the breed of various colours on exhibition, two classes being devoted to coops of twelve birds, cockerels and pullets respectively, *they being recognised as the best of all Table Poultry*. It is positively astonishing to note the uniformity of type existing among the exhibits, more especially as it is fully acknowledged that they are composed of a mixture of different bloods. There is, however, a marked tendency, especially in the pullets, to revert to the flat comb of the Malay; but this is easily accounted for, as the farmers do not, as a general rule, pay the slightest attention to the breeding stock, so as (from a Show point of view) to eradicate this fault. In their eyes the comb being either triple or flat does not matter; what is chiefly looked for is great size, hard, close, lustrous plumage, and an abundance of white, juicy meat on wings, thighs, and breast. These essential characteristics are found in the class of fowls bred all over the district, and, being bred and reared under the conditions and surroundings of free and unlimited range, "fill

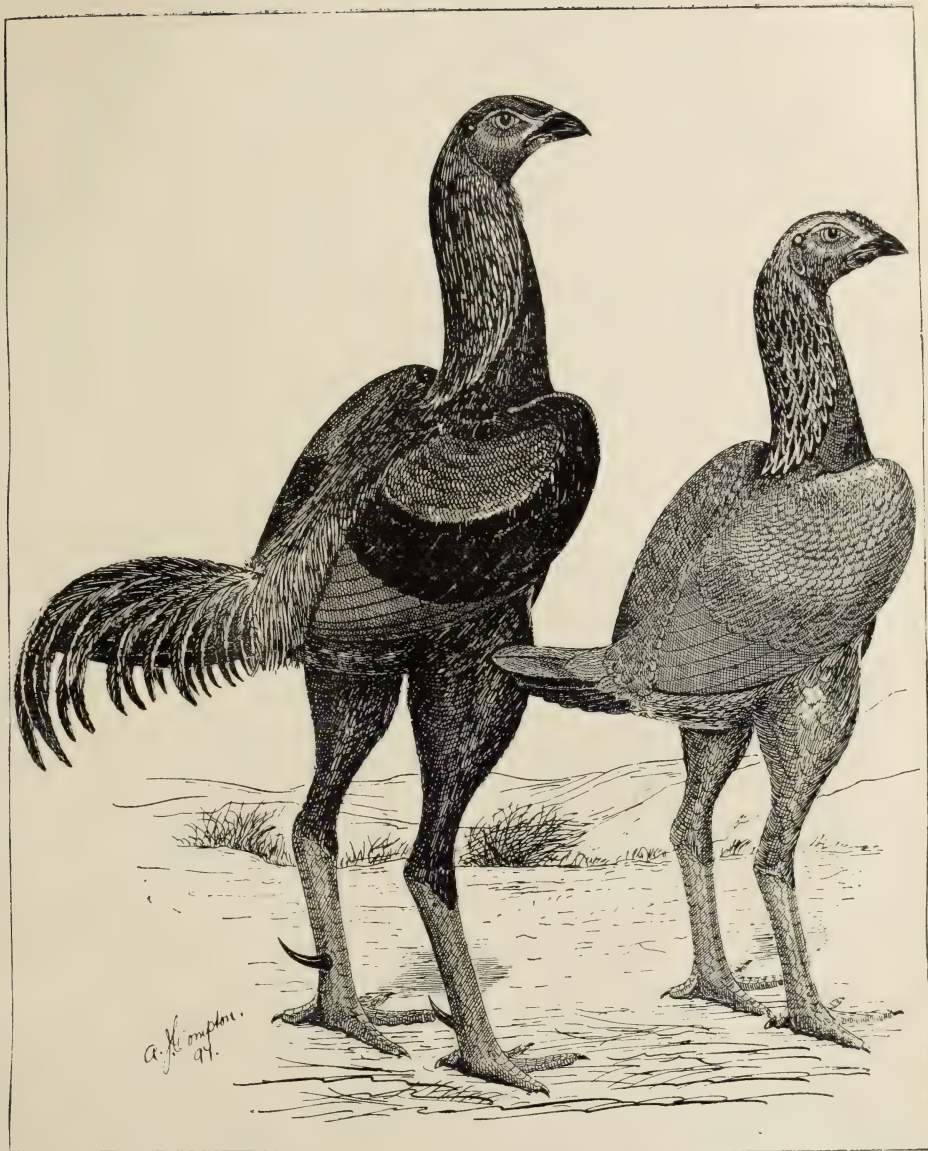
the bill" thoroughly; and, as a noted fact, many of our prominent and most successful breeders and exhibitors of Australian Game (who, by the way, in most instances are compelled by force of circumstances to breed and rear their stock in cramped-up situations) are at times positively astounded by the appearance of an occasional specimen (picked up on its native heath), a bird which far excels in Show points of excellence those birds that have had generations of ancestors all carefully bred to the recognised Show Standard. This proves that the breed, if given free liberty, *and, even if not judiciously selected and mated, still possesses a definitely fixed type*, so much so that even in a flock of 100 head or more scarcely any perceptible difference in *type* will be noticed, and with the exception of the comb, which, as before remarked, is in a large proportion of the birds flat, and the shades of colour ranging from the darkest to medium hues (which latter feature, however, will be found in any distinct breed of Poultry other than self-coloured breeds), they are very uniform. In the colours bred for the Show pen, the preference is allowed to a bird of the Black-Breasted Dark-Red stamp, though many of the best specimens are more of a ginger colour, and as a peculiar coincidence the last mentioned are, as a rule, finer, larger, and more vigorous specimens. This applies to the hens and pullets more than the cockerels, many of the best in type, size, reach, and style running almost, if not quite, reddish-brown on back and wings, and dark, almost burnt sienna colour, on the breast; though when a cockerel is produced good in type, size, and style, with a sound black breast and a good deep, rich red on hackle and saddle, with the deepest shade of rich maroon on back, and bright steel-blue in wing-bars, he is highly prized.

Among the hens many may be found quite equal in colour and pencilling to the highest type of Modern British Black-Breasted Red Game, but in hardness and closeness of feather literally eclipse the British. A *soft-feathered* Australian Game cock or hen is anathema.

Were more consideration given by the Farmers to the selection and mating of this grand race of Poultry, by mating the sound-coloured cocks to the best of the Partridge-marked hens, the general results as to colour points would become more uniform, though we really question whether this would be an unmixed good. However, there are many magnificent Wheaten hens also of the variety which may always be depended upon to produce the brightest and soundest colour in the cockerels of the first cross, but it is from these same Wheaten hens that the mischief is caused by producing the ruddy or reddish-brown pullets; and again, if the latter are bred from the following year, brown feathers appear in the breast and fluff of the cockerels so bred, and some of the pullets again revert to the Wheaten.

Next to the Black-Breasted Reds in popular favour we would place the Blacks, and among birds of this colour may be found the *ideal* Australian Game, though, again, these have suffered somewhat by the carelessness in breeding, and at times the injudicious crossing with the Black-Breasted Reds to obtain reach, some of the very best cocks exhibiting reddish feathers in hackle, and the hens a light lacing of reddish-gold to the feathers of throat and breast (somewhat similar in marking to a very dark Brown-Red British hen. The Blacks when in high condition fairly glisten in the sun, the plumage showing brilliant green and purple reflections; and this breed, being rather shorter-feathered and stouter-built than the other varieties, is the embodiment of physical beauty. It is rare to find the Blacks as reachy as the other colours, their tendency being towards a more compact, large-bodied, symmetrical Fowl. These have, as a rule, dark brown or black eyes (the Black-Breasted Reds and all the other colours being invariably pearl, or yellow), and it is an extreme rarity to find pearl eyes in this variety.

The Blacks are noted and stubborn fighters. Many of this colour we have seen pitted in past years, and they either won or died fighting. This we could not conscientiously state about the others. We have seen "good-uns" and "bölters" of each and every other colour. We note with pleasure that the Black variety has found favour with that world-renowned authority on Game Fowls, Mr. H. P. Clarke, of Indianapolis, Indiana (U.S.A.). Mr. Clarke, in writing about the breed, states that the birds he now owns of this breed *are not at all like the so-called 'Colonial Game.'* Probably he meant not at all like our *Show* specimens of Black-Breasted Red, Pile, and Duckwing Game. It will be noted that we have shown there is a great difference between the Blacks and the other colours, but all the same the Blacks are of purely



Modern Black-Breasted Red Australian Game.

Bred by Mr. W. H. Webb, Bathurst, N.S.W.

COCK—"AGITATION."

Winner of 1st, Bathurst and N.S.W. P.P.C. and D. Shows, 1891, and 1st and President Cup, 1892.

HEN—"COMPANION."

Winner of 1st Dubbo, 1891-92-93; 1st N.S.W. P.P.C. and D. Show 1892; and Champion Sweepstake, 1894; 1st and Special U.F.C., 1892.

Australian origin. Our knowledge of this variety extends over a period of 30 years, and they were bred in great numbers for the Pit about 20 years back. From one prominent breeder we had the assurance that this Black stock were the descendants of Black Malays and old-fashioned British Game crossed, breeding back to the black colour for preference. This breeder had kept the variety for over 20 years prior to our knowledge of them. Mr. Clarke writes:—

“These ‘Malay Game’ were imported from Sydney (N.S.W.), for Mr. J. E. Brannon, of San Francisco, though the original birds have since come into the hands of the writer. They have pea-combs, and in many respects bear close resemblance to the Aseel, but are a trifle higher in station, and are more heavily feathered, with longer wings and tail. In colour they are glossy black of the most brilliant, lustrous kind. Even the hen has such a polish to her coat as would make a Langshan pale with envy. Dark eyes, legs, beak, and face; they are very decided brunettes, and graceful as a Creole. Though they look something like Aseels they are quicker in movement, and can drive the gaffs with a truer aim; at the same time they are considerably ahead of American and English cocks in muscle, lung-power, and ability to stand fatigue. The old cock has been in three mains, and, though getting along in years now, still seems good for several more. He fought at 5lb. 6oz.; the younger birds run from 5lb. 4oz. to 6lb. This variety is quite different from the Malays seen in Australian Poultry Shows, and is not at all like the so-called ‘Colonial Game.’ It is undoubtedly of Indian origin, but further than this its history is not known.”

Next come the Duckwings; and these, though not nearly so numerous as the two first mentioned, are growing in favour gradually and surely, and, though we have seen at times an occasional specimen better than any of the other colours of the same year, as a general rule they are softer-feathered and more clumsily built, though, again, for the Pit the Silver or Grey strain were among the champions, being, as a rule, quicker fighters. The Blacks and Henfeathers were a trifle slow, but could “keep it up,” in which quality the Greys were slightly deficient. The Piles are of much later day production, being bred from the cross between the Black-Breasted Reds and Whites. We rarely ever saw one in the Pit, even in recent years. They are very handsome and attractive in appearance, but there is great difficulty in breeding them up to the Show Standard of colour, and many off-coloured birds are produced yearly, though within the past three or four years much improvement has taken place. That they are destined to become one of the most popular varieties for the Show pen we feel certain, as the contrast of colours is so striking.

The Whites are a most beautiful variety, and among these we have seen some immense specimens. They, however, are inclined to be a trifle *soft* in feather and “soft” in the Pit, though we have seen Whites fight as well, and as long, as the best of them. The Cuckoos, again, are also *soft* in feather and “heart” as a general rule. They were always uncertain birds in the Pit, though when one was a *Game Fowl* he could fight at a terrific pace. These are also inclined to develop too much feather.

Last, but by no means least, are the Henfeathers, of which we have seen Partridges, Gingers, Mealy-Greys, Duckwings, Blacks, Whites, and Cuckoos, and also sub-varieties of these colours. These are highly esteemed as a table Fowl, their appearance being deceptive as to their actual weight, and as a cross for improving or producing ideal table Poultry are excelled by no other known variety. They are similar to the Blacks, in being stout and cobbily built, possessing enormous muscular development, and their flesh is, if anything, whiter and juicier than the rest of the tribe. For many years these have been highly esteemed for the Pit, and, though rather slow in flying, are wonderful in-fighters, and possess marvellous striking powers. The hens of this variety are somewhat difficult to discern from the hens belonging to the other colours; but the difference is there, and is chiefly noticeable on the feathers of the cushion and back, which are more rounded, and mostly edged with a lighter shade than the ground colour (except in Blacks and Whites), and as a striking peculiarity, whereas the tails of the hens of other varieties are much smaller and shorter in proportion to the cocks to match, the hen to match the hen-feathered cock is generally adorned with a large tail, and the two top feathers showing a distinct downward curve to the end.

We now note that at last the breeders of Australian Game are aware that they possess a breed of Fowls second to none for providing the class of Poultry suitable for export, either bred pure or crossed, the

pure-bred birds winning first prize in the Table Poultry section at the late Bathurst (N.S.W.) Show, *the exhibits being judged by the Government Poultry Expert, Mr. Geo. Bradshaw, who stated they were excellent for the purpose, possessing long breasts, with great depth, carrying a wealth of meat rarely seen on any other variety, and of the much-desired white or pale primrose colour.* For a long time we have wondered why the Cornish-Indian Game Fowl has been "boomed" to such an extent as THE Table Fowl of superlative merit, either pure or crossed with other varieties, while the merits of the short-legged, large-bodied, hardy-constitutioned, full-fleshed Australian Game Fowl have been entirely overlooked, the latter breed possessing these highly important, excellent, and much-desired features in any breed for producing high-class table Poultry, the whole of these prime considerations being among us always, without any attempt at artificial cultivation whatever, which could again, with little difficulty (as the breed is thoroughly acclimatised), be improved to a still greater extent.

At the same time, however, we wish it clearly understood that the majority of the specimens shown at our leading Poultry Shows as Australian Game are by no means ideal birds for crossing to produce table Poultry (though the winning Black-Red cock, which secured the Greville Challenge Cup for Australian



(From a Photograph).

Mr. W. Heron's Australian Duckwing Game Cock.

Game at the late N.S.W. P. P. C. and D. Show, '97, was certainly an exception*), the craze for reach, length of neck, thighs, and shanks placing them quite out of the question for this purpose; but as the Blacks and Henfeathers have *not as yet been improved out of all recognition*, these are the class of birds to which our remarks refer.

Outside of the varieties mentioned, there is quite another breed of Poultry, called "Colonial Game." These birds are vastly different to the varieties recognised in the Show pen. In general build and feather they more closely resemble the old-fashioned stamp of British Game, the majority possessing single combs, though, again, they are larger bodied, stronger in bone, and coarser about the head. Among the cockers they are bred solely for Pit purposes, and as *Game Fowls* are highly esteemed. No fixed rules as to colour points are recognised. In the eyes of their admirers a good one could not be a bad colour, no attention

* This cock won first prize for the heaviest bird in the Show, scaling 12 lbs., competing against all varieties.

whatever being paid to the mating of the stock outside of actual fighting qualities. We have come into contact with many old-time patrons of the sport, and their unanimous opinion is, that the class of Fowl bred for the Pit in this country could just about whip creation. This is no idle boast, as many importations of the best from other parts have been tested with them. Mr. Phil. Williams, a well-known breeder of Colonial Fighting Game, while on a visit to Great Britain some time back, visited many of the more prominent cockers' yards in that country, with the intention of bringing out to Australia some of the best Old Style British fighting stock, but was by no means favourably impressed with the class of birds used for the purpose, mentioning the fact to the writer that the best of them he saw were not to be compared with the stock here. He, however, bought some "Tassells," renowned as a wonderful fighting strain, but on trying them, would not bring them home. The origin of the Fighting Colonial Game is somewhat obscure; but it is definitely certain that the old-fashioned, white-legged British Game, the Malay, and the true Indian Game Fowl (the Aseel) were used in their composition. The various strains, being crossed and re-crossed, produced a nondescript Fowl in colour, but of undeniable Game qualities. For Pit purposes they are bred rather small,



From a Photograph.

Mr. W. Heron's Australian Duckwing Game Pullet.

an average weight for cocks being 5 to 6 lbs. (size being restricted by the cockers breeding from small hens), though they will at times reach great weights, even up to 10 and 11 lbs., without any special care in mating. Birds of this size are difficult to match, any bird weighing 7 lbs. or over being termed a "turn out," or "shake bag." These large ones are fought at "catch weights," the others being matched to an ounce.

Their chief merits, in addition to their fighting capabilities, are handsome appearance and sprightly action, extreme hardiness, easily reared, the hens good layers and best of mothers, as a Table Fowl scarcely surpassed, and, if given a good range, always in excellent condition for the table.

In breeding any of the varieties for the Show pen, it will be understood that birds only of good size, style, symmetry, and close, hard, lustrous plumage should be selected as breeding stock, discarding any bird which is constitutionally weak, or possessed of bodily deformity in any form, or which has a tendency towards the angular stilty type of the Malay, *especially avoiding in the hens those in which the neck hackle bunches, as it were, behind and below the back of the head, then finishing off suddenly to a point an inch or so short of*

a straight line drawn across the shoulders at the base of the neck. This is a strongly marked characteristic in a good Malay (and as the Australian Game Fowl should not be as spare-feathered, but should have *enough* feather) it is a point strictly to be avoided in breeding Australian Game, and one, when once in a strain, very difficult to "breed out."

To meet with success in the Show pen in breeding Black-Reds, it is necessary to mate up separate breeding pens for the production of the sexes : and for cockerel breeding, a cock should be chosen, clear pearl, if possible, in eyes, sound, glossy-black in breast, under-parts, and tail ; neck hackles, deep rich red, quite free from dark or light streaks or spots ; saddle hackles, a trifle lighter in colour, but still clear in the feathers ; back, a rich, deep, lustrous maroon ; the wing-bars, bright steel-blue ; and the secondaries, a clear, deep bay. The face, jaws, and under-parts of throat as free from feathers as possible, taking particular notice that the bird handles hard and close, and is very lustrous in plumage throughout, as these particular points are certain to be transmitted to the cockerels bred from him—points that are necessary in the high-class Show specimen. The hens to match may be either Wheaten or Partridge. The former may be absolutely depended upon to produce bright-coloured cockerels ; but the latter will also produce cockerels all that can be desired, if selected with rather light yellow hackles, slightly streaked, or, better still, slightly *pencilled* in the feathers, these hens running a medium brown in ground colour, well pencilled with minute markings of black. On no account should these pencillings approach bars on the secondaries or tail coverts, as birds with these faults will produce cockerels rusty in under-parts of breast, thighs, and fluff. If these hens have a few ruddy-coloured feathers on the sides of the wing, this is a good feature, and invariably hens so marked throw the best coloured cockerels. The paler in breast the hens are the better ; and they should be of large frame, strong boned, wide in the back, with tails carried low, and their legs set on wide apart, a small Australian Game hen being of little use to breed cockerels for the Show pen.

To breed the pullets up to Show form, a darker coloured cock may be used, and if the lower hackle feathers are streaked with a darker shade this is a good point ; he may also have a few brown feathers in breast and fluff, and his top colour may also be of a duller shade than the bird used for cockerel breeding. The hens to match should be rich yellow in hackle, each feather well and solidly striped with black, the ground colour of the back and wings having a brownish-drab appearance, the breast a good deep salmon colour—in fact, the Show hen at all points. One point in breeding the pullets is the shape and make of the cock's comb. This should be (if un-dubbed) as neat and as small as possible, the three divisions forming the triple comb clearly defined, each division neatly and evenly serrated (the centre division being the highest), the whole to set firmly and closely on the head, a bird faulty in comb invariably throwing pullets loose and flabby in this important feature. Too much stress cannot be placed upon this point, as an Australian Game pullet should have a most attractive and trim appearance about the head ; also for breeding pullets, *white* in the ear-lobes of the cock should be strictly avoided, as this objectionable feature will be even more strongly pronounced in the pullets bred from a cock faulty in this respect.

To breed the Blacks to Show points of colour, the best system is to have separate breeding pens. To produce cockerels, both parents should be as dark in beak, eyes, legs, and feet as possible, and the whole plumage throughout on the surface should be of the glossiest greenish-black colour, and the under-fluff of the feather right down to the skin should be as black as possible. To produce pullets, a cock may be selected with a few feathers of the neck and saddle hackles of a coppery hue, the plumage, however, throwing off green reflections. The hens to match should be sound, hard, and perfect in colour. Any tendency to brown, gold, or coppery feathers in hackle and breast, or upper part of throat, should condemn them for the breeding pen.

In breeding the Duckwings to colour points, separate breeding pens are necessary. To produce the cockerels sound in breast, body, fluff, and tail, a bright-coloured, clear-hackled Black-Breasted Red Cock should be used. The hens to match should run as white in head and neck as possible, the lower feathers of the neck hackle being more pencilled than streaked, the ground colour of the plumage a bluish-



Red Pile Australian Game Cock, "Tom Sayers."

Bred by and the property of Mr. E. Silcocks, Glebe Point, Sydney, N.S.W

Winner of 3rd prize as a COCKEREL	..	..	N.S.W. P.P.C. and D. Soc., 1896.
" 1st " " COCK	..	..	N.S.W. P.P.C. and D. Soc., 1897.
" 1st " " COCK	..	..	Poultry Club of N.S.W., 1897.

Only times exhibited.

grey, minutely and evenly pencilled all over with markings of black. The breasts of these hens should be a rather pale shade of salmon. This will produce the brightest and best coloured cockerels, but the pullets will invariably turn out off-coloured Black-Reds, though at the same time, if used the following year with a Golden-Duckwing cock, will again produce sound-coloured Duckwing cockerels.

To breed the pullets the pair of Duckwings are the best, and the more distinctly striped with black in hackle the hens are the better, and even if the hens fail slightly in this marking, this can be counterbalanced to a great extent by the cock's hackle feathers towards the bottom being slightly streaked. Again, when rather too much Black-Red blood exhibits itself in the form of a brownish cap on the head, and the ruddy, or rusty feathers on wings of the pullets, this can easily be bred out the following year by using a Silver cock, of which there are certain to be some produced from the system of mating for pullets, these Silver cocks being of the greatest value for bringing back the beautiful grey colour on the wings and backs of the pullets bred from them.

In breeding the Piles to colour points, it is necessary to have recourse to the Black-Red blood at least once in three years; and to produce cockerels clear white in breast, under-parts, and tail, and bright clear red top colour, the best plan to follow is to choose a sound, bright-coloured Black-Red cock, as free as possible from streak in hackle, mating him with Pile hens of a light shade on breast, and with hackles lightly edged with gold colour, and as clear white in body as possible, though at the same time excellent cockerels may be bred from Pile hens heavily marked with gold in hackle, rather pale in breast, and with wings and back well mottled with rusty or brown feathers. These should be mated with a sound-coloured Pile cock. All the chickens would not turn out good in colour, but there would be a good proportion up to Standard form.

To breed the pullets, the pair of Piles are the best, and in this case the cock need not be as bright in colour as the bird used for cockerel breeding—that is, he may be more of a chestnut-red in hackle and back, and if with a few feathers on the breast, laced with gold, this will be an advantage, rather than otherwise. He should be mated with hens, sound, deep salmon on breast, well marked golden hackles, and the purest and clearest of white throughout back, wings, and tail; this class of hen being the recognised Show Standard colour.

Whites, being self-coloured, are not so difficult to breed. The chief thing to be avoided in breeding them is to note that the stock birds have no tendency towards straw, golden, or black or brown tickings in the plumage, selecting those that have the purest silvery white plumage throughout. These, however, have an inclination towards softness in feather, which must be guarded against, by selecting those alone for breeding that are hard, close, and lustrous in plumage.

In breeding the Cuckoos to colour points, those birds only should be bred from which are sound and even in ground colour, and with markings, or barrings, clear and distinct. Any tendency to reddish, golden, or whole coloured feathers should be avoided, though there is great latitude allowed in this breed, the Golden Cuckoo being a very handsome and attractive bird; but they do not breed true to colour, there being evidently a dash of Black-Red blood in their composition, and which exhibits itself rather too prominently at times.

In breeding the Hen-feathered cocks, as the marking of any of the hens of the former varieties and sub-varieties is allowable (with the exception of the Piles), no fixed rules could be laid down as to their mating, beyond the suggestion that the chief fault to be avoided in the stock cock is, that the top outer feathers, corresponding to the top outer tail coverts of the hens, or the sickles of a full-feathered cock of the other varieties, should not on any account exceed in length the true tail, *just reaching the extremity, and no more*, though this important feature, even in the best now exhibited, is very rare. These feathers should be fairly broad, and have a slight downward curve towards the extremities. In giving these hints on mating to produce Show stock, there will always be a more or less proportion of sub-varieties of colours produced; but, these having no character, are scarcely worth the trouble of attempting to perpetuate for Show purposes. The colours treated on are the Standard colours, and any others bred are merely individual favourites. For

instance, the cross between the Blacks and Duckwings will often, though not always, produce the brassy-winged cocks; but there is a vast difference noticeable even in the shades of this colour, and no uniformity of colour can be expected in the progeny if they are again bred from.

To Mr. W. H. Webb, of Bathurst, N.S.W., we are indebted for the following notes on the breed. These are all the more valuable, coming, as they do, from the universally acknowledged leading breeder and exhibitor of the variety in Australia, and we can safely assert that to this gentleman's efforts, by the aid of his able pen, his strong personality, and his indefatigable exertions, the present high state of perfection that the Australian Show Game Fowl has attained can, in a great measure, be attributed. Mr. Webb states:—

"That the good qualities of the Australian Game Fowl should be appreciated by the public is no surprise to those who have had the good fortune to MEET it, the hens being good layers of rich eggs, and the cocks fine, hardy, healthy, vigorous sires, cause good results in hatchings. The chickens are hardy, and easy to rear. They grow fast, and soon repay the trouble of good feeding. I have seen cockerels six months old scale over 7 lbs., and odd ones eight months old go $9\frac{1}{2}$ to 10 lbs., and well remember one fine fellow scaling 11 lbs. at only 10 months old. The heaviest bird I ever weighed turned the scale at 12 lbs. I have heard of an odd one or two going 13 lbs.

"To get at the early history of this fine Fowl we must go back to the early days, when the Imperial troops were located at Parramatta, N.S.W. There appears to be little doubt that they originated there, from a cross between the British Game and the Malay, both brought out, no doubt, by some of the officers. They soon got into the hands of the Farmers about Richmond and Windsor, N.S.W. Some of the old hands about these splendid districts were not slow to see that the Fowl was well worth breeding and looking after. Colour was no object, many of the Cuckoo variety being most common. These proved great fighters. Amongst those who over thirty years ago bred Australian Game I must not omit the name of Mr. Isaac Hopkins, of Windsor. In those days they were called 'Fighters,' later on they acquired the name of 'Colonial Game,' and more recently still they jumped the great name of 'Australian Game.' Though I had admired, and bred this Fowl prior to 1883, it was not until after then that I noticed that any great improvement was made in the colours. In that year, Mr. J. T. Campbell and Mr. G. Eaton were first and second in Black-Red cocks at the sixth Show of the N.S.W. P.P.C. and Dog Society, and well do I remember the smart, tight-feathered bird, trained to perfection, that won for Mr. Campbell, also the fine, large, well-made fellow that scored second for Mr. G. Eaton.

"The following year the tables were turned—Eaton, 1st; Campbell, 2nd. I can remember this second prize bird as well as if he was before me now; his perfect carriage and well-trained way of showing himself could never be forgotten. In 1885 Mr. R. Baldwin came off 1st in cock and hen, as a pair, with an excellent sample; Mr. E. A. Redman, 2nd. In cockerels, Mr. A. G. Friend got "home" with one the best of colour. 1886 found Mr. A. G. Friend 1st in pairs (cock and hen), Mr. E. A. Redman, 2nd; Mr. A. G. Friend 1st, and Mr. E. A. Redman 2nd, in cockerels. These gentlemen were well ahead in style and colour. In 1887 Mr. R. Baldwin came 1st, and Mr. George Hayward 2nd. I had the pleasure of selecting this pair for Mr. Hayward the previous year, and although without a card they came out 2nd in this year, and, what is more, sired some great winners. In young cocks Mr. G. Hayward secured 1st honours; Mr. H. Bartlett, 2nd. In 1888 Mr. G. Hayward secured 1st honours in cocks (the cock and hen system having been done away with), Mr. S. Wickham, 2nd. In hens Mr. E. A. Redman 1st, wonderfully close feather, smart and good colour; Mr. A. P. F. Wilkie, 2nd. In the any colour class for cockerels, Mr. W. Lynch 1st, a Brown-Red, and Mr. W. H. Webb 2nd, a Black-Red. In any colour pullet, Mr. W. H. Webb, 1st and 2nd; both Black-Reds, very tall, the winner being very good in colour. In cockerels Mr. S. Wickham came 1st, a decision that caused much comment, the general opinion being that Mr. G. Hayward should have won easily, instead of being 2nd. In 1889 Mr. W. H. Webb secured 1st honours in cocks with a large fellow, close in feather on the dark side; Mr. J. T. Campbell 2nd, with a very large bird, also dark in colour. In hens Mr. W. H. Webb secured 1st and 2nd, the winner being exceptionally good in comb and eyes. In cockerels, any colour, the winner turned up in Mr. W. H. Webb's enormous tight-feathered bird of splendid colour, which

bird also won Championship of the Show for Australian Game, and was selected as the nearest to what was required for a Standard. He was carefully drawn by Mr. Neville Cayley, and the illustration has frequently appeared as the model to work to. Mr. J. T. Campbell was 2nd, with an exceedingly smart bird, very close in feather on the dark side, and a little narrow on the shoulders. In hens Mr. W. H. Webb was 1st; Mr. A. G. Friend, 2nd. In cockerels and pullets Mr. W. H. Webb got 1st, the pullet being selected as Champion of the Show for the Australian Game. She was drawn by Mr. Neville Cayley, that very able artist for the *Sydney Mail*, and a beautiful picture appeared in that journal. Both the cockerel and pullet were greatly admired, and represented at that time the nearest to the requirements of breeders. The illustration has frequently been reproduced in the Fanciers' papers, and the proprietors of the *Sydney Mail* deserve the best thanks of Australian Game Fowl breeders for their energy and push in producing such pictures. Mr. W. Pratt came 2nd. 1890 found Mr. W. H. Webb 1st in cocks; Mr. C. B. Henderson, 2nd. In hens Mr. S. Redman, 1st; Mr. J. T. Campbell, 2nd; two beauties. Cockerels: Mr. G. Hayward, 1st; Mr. G. Bunting, 2nd. In pullets Mr. W. H. M'Keown, 1st, with one showing good style; Mr. J. Palmer, 2nd. In 1891 Mr. W. H. Webb secured 1st and 2nd in cocks. Mr. G. Hayward came 1st in hens; Mr. J. T. Campbell, 2nd. In cockerels Mr. W. H. Webb came 1st, with a bird known in Australia as 'Agitation No. A2, 1890'; Mr. J. Thompson, Junr., 2nd. Mr. Webb's winner was one of the best ever penned. When very young he won 1st at Bathurst. Being penned in Sydney in the same year, in a class of 24 birds, he secured 1st, and was so much admired that he was claimed by Mr. Walter Tucker at 15 guineas, the highest price on record for a bird of this breed. Mr. Tucker wanted the best he could get. Seeing £30 on this bird he claimed 2nd and 3rd, at £10 each, making £20. When he found he could get the first-prize bird for 15 guineas, he at once bought him. This made £35 15s. for three birds. Mr. Webb gave it as his opinion that the winner would come 1st next year, unless something very sensational was produced in the meantime. Events proved that the prognostications were correct. In pullets Mr. Webb came 1st; Mr. T. Thompson, Junr., 2nd. In 1892 Mr. W. Tucker came 1st and President's Cup for best Australian Game Cock or Cockerel at the Show. This winner proved to be the same bird that Mr. Tucker purchased from Mr. Webb the year before at 15 guineas. Mr. E. Rouse came 2nd, with Mr. W. H. Webb's 1889 champion, which he had purchased, with two first class hens, for £25. In hens Messrs. Silcocks and Campbell came 1st; a fine hen, rather too light and Britishy in feather to my fancy. Mr. W. H. Webb, 2nd; very large. In cockerels Mr. W. Tucker came 1st, with a very nice one of splendid colour; Mr. J. Clift, Junr., 2nd, with a very smart, good-coloured, bird. In pullets Mr. E. Rouse, 1st, with a good one, rather coarse pencilling on secondaries; Mr. J. Palmer, 2nd, a good one. In 1893 we find some fresh blood coming to the front. In cocks Mr. S. R. Watkins, 1st and President's Cup, with an excellent bird, good legs, feet, splendid short, square body, and tail about right, but a trifle light in hackle; Mr. W. Tucker, 2nd, excellent colour; Mrs. W. H. Webb, 3rd. In hens Mrs. W. H. Webb, 1st; Mr. T. Thompson, Junr., 2nd and 3rd. In cockerels Mrs. W. H. Webb secured 1st, with a well-shaped, good-coloured bird, carrying a fine strong beak and grand eyes; Mr. W. Tucker, 2nd, rather too fine, showing too much British; same exhibitor's unmentioned bird a splendid colour. In pullets Mr. T. Thompson, Junr., penned an excellent style one for 1st, but faulty in comb; Mr. W. H. M'Keown, 2nd, rather too short on the legs; Mr. S. R. Watkins, 3rd. In 1894 Mrs. W. H. Webb, 1st, an enormous bird, rather too much feather, perfect eyes; Mr. W. Tucker, 2nd, improved since previous year. The two birds held the same positions as cocks that they did as cockerels the previous year. Mr. Tucker's third-prize bird was good in colour. In hens Mr. S. R. Watkins came out well with a tall, stylish one, a little dark in colour; Mr. D. Fraser, a Queensland exhibitor, 2nd; Mrs. W. H. Webb, 3rd. In cockerels, Mrs. W. H. Webb, 1st, an upstanding, short-feathered, square-shouldered bird, good strong beak, good head, eyes, and good colour, rather light in bone; Mr. G. H. Moulds, 2nd, same colour as 1st; Mr. S. R. Watkins, 3rd. In pullets, Mr. S. R. Watkins, 1st; Mrs. W. H. Webb, 2nd; Mr. J. E. Pemell, 3rd; 1st a raking pullet, a little soft in feather. In 1895, cocks found Mr. S. R. Watkins 1st, a really good coloured but rather narrow bird, and lucky to take the Cup as best Australian Game Cock; Mr. W. Wynn, 2nd, short on leg. but very close-feathered and fine colour; Messrs. Silcocks and Campbell, 3rd, fine

upstanding bird, good shape, rather twisted in hackle. Hens: Mr. S. R. Watkins, 1st, did not handle so well as she looked, rather long in feather, very tall; Mr. W. H. Webb, 2nd; Mr. J. Hurford, 3rd. Cockerels: Mr. T. Gardiner, 1st, a tremendous bird, grand long neck, good square, well-carried shoulders, good body very long legs, enormous thighs, and great bone; good tail. This was one of the best cockerels ever penned. He was not perfect in toes, and his head might have been a little longer. Mr. Gardiner might well be proud of having bred such a bird. He had the sympathy of many at not winning the Cup for best Australian Game Cock or Cockerel in the Show. Mr. J. Carpenter, 2nd, a good short-feathered bird, rather dark; Mr. J. Hull, 3rd, grand colour, rather round on shoulders. Pullet: Mr. J. Carpenter, 1st, a fine large, good-coloured bird; Bonaventure Poultry Farm, 2nd, baggy and coarsely-pencilled on secondaries; Mr. J. Hull, 3rd, a good sound partridge-coloured pullet, ought to have been 2nd easy. The 1896 Show of the New South Wales Poultry, Pigeon, Canary, and Dog Society brings us up to date, and with it some of the greatest surprises the Australian Game Fowl breeders ever had. In cocks, Mr. Brown was astonished to find he had won 1st with the same bird that Messrs. Silcox and Campbell got 3rd with the previous year. Mrs. W. H. Webb was 2nd, with the great bird Mr. Gardiner scored with in cockerels in 1895; and Mr. W. Wynne came 3rd, with his fine coloured bird. Mr. S. R. Watkins was much disappointed to find his 1st Prize and Cup winner of the previous year, although in splendid form, actually unnoticed, and beaten by two birds he put down the previous year. For a Cup winner, penned in splendid condition, to come down so low as to be unworthy of a card in one year surprised many. In hens, Mr. S. R. Watkins "got home" with a very reachy one; Mr. J. Hurford, 2nd and 3rd. Cockerels found new blood in Mr. J. House, 1st, with a smart, close-feathered, well-made bird, set on the best of legs, and perfect feet; Mr. F. J. Riordan, 2nd; Mr. J. James, 3rd; all three new men at this Show. I trust their success will encourage them to try again. Pullets: Mr. F. J. Riordan, 1st, a great surprise, as she carried a Malay comb, was deformed, and absolutely unable to stand up in the pen; Mr. S. R. Watkins, 2nd, by far the best in the class, a raking, stylish bird, good head and eyes, and one of the best ever penned; Mr. J. T. Town, 3rd, a very nice one. Mr. W. Heron penned a sensational Duckwing cockerel at this Show.* Fearing space was limited prevented my dealing with Duckwing, Pile, Black, and White Australian Game.

"I feel that no account of the Australian Game Fowl would be complete without giving the Hon. E. Greville, M.L.C., President of the New South Wales Poultry, Pigeon, Canary, and Dog Society, every credit for the several handsome cups he has so liberally presented for open competition. These cups brought about the keenest competition, and many Australian Game Fowl breeders feel very grateful to that ever genial and kind donor for the great impetus he gave the breed, which, after all, is Australia's only Fowl."

The following remarks are kindly added by Mr. James T. Campbell, equally well known as an enthusiastic admirer, breeder, and successful exhibitor of the variety. Mr. Campbell writes:—

"My experience of the '*Colonials*,' as they were called, dates back to my early boyhood days, and birds of that type were kept by my father for many years previously. The hen fever attacking me, I gave my parent no peace until he built a house and run for the accommodation of my birds, independent of his own, stocking mine with a few of the Game Fowls of the period. Shortly after I had the good fortune to obtain a pure Malay cock from Mr. Philip Clark, Flaggy Crossing, Glenmore, *via* the Oaks, who had at the time imported some specimens of the Malay from the Mauritius, placing this cock with Game hens, some of the Old Style British, and others of the old stamp of Colonial Fighting Game; and after breeding the pullets back to the cock, and the cockerels to the hens, again crossing the progeny thus bred, produced some 'thumping big *Colonials*,' all more or less of the present-day Black-Red type. For some years following I chose my largest, tallest, and best coloured cockerels, putting these up to the best hens I could procure, and occasionally breeding the pullets thus produced back to their father, culling out each year birds faulty in comb, eye, or colour, aiming all the time to obtain length of limb; the hens brown on top of the head, yellow and black hackle, brown body colour, and wings without the pencilling now often seen on the variety, the hens in those days being ever so much darker and harder-feathered than the general run of present-day

* This bird won the Greville Challenge Cup for Australian Game, open to all colours.—Ed.



Australian Black Game Cock.

specimens. The first time I noted the difference in the hens especially was on an occasion that the Windsor breeders came along with a class of hens approaching the modern marking, which they explained they had produced from a cross with the hen-feather. These hens were coarsely partridge marked, often approaching bars similar to the pencilled Hamburg. This cross was very noticeable on the hens' backs and cushion feathers, and on being used for the breeding pen invariably produced cocks heavily ticked in hackle, body feathers, and bar of wing, and this was nearly always accompanied by a stunted tail, and a loss in colour right throughout both sexes. I happened about this time to be stationed in Yass, and sent home to Camden for some of the best of the birds left, breeding a goodly number that year (1879), sending down to the Sydney Show in 1880 a pair of 'Colonial' Black-Reds eight months old, and a pair of Duckwings seven months old, the Show being held in the Temperance Hall, Pitt Street, Sydney; the Black-Reds scoring first, the Duckwings h.c., the Judge remarking that the latter were splendid specimens, but too young for the Show pen. These two strains secured the major portion of prizes for some years, until other Fanciers came along, and beat mine with progeny from birds which I had sold. Even at this remote date some of the present-day winners can be traced to birds descended from this identical strain. I went to the trouble of keeping a Pedigree Stud Book, many in past years ridiculing the fact that it was possible for me to sell a pair or trio of birds, or tell the purchaser what they would produce. Nevertheless, I have received the credit from them after the season's breeding, and I have never begrudged them beating me, though often I have seen so-called 'Australians' (nothing less than cross-bred Hennies) winning against the real 'Simon Pures,' which disgusted me. I have frequently met birds bred by Mr. T. Tye, of Newtown, the Sparkes family, and others, which were worthy opponents, but they retired after a few years, coming again later on, and at this time a steady and decided improvement gradually took place in the birds exhibited. The Judges often got astray through ignorance of the breed, but I stuck to them through all disadvantages, and, while I can afford to keep a few, will always do so. Even at this day I am proud to state that my birds have to be reckoned with when the prizes are being distributed, the first prize Black-Red cock at the late N.S.W. P.P.C. and D. Society Champion Show, 1896, exhibited by Mr. Brown, being bred by me, the same bird scoring third in 1895 under the same Judge. This bird is also the sire of that magnificent Duckwing cockerel bred by Mr. W. Heron, of Marrickville, which won the Greville Challenge Cup for Australian Game at the N.S.W. P.P.C. and D. Society Champion Show, 1896, this cockerel at ten months old weighing over 11 lbs., the biggest and best Australian Duckwing cockerel that has ever been exhibited, and as a claim to being a bit of an authority on Australian Game, I may state for the past 18 years I BRED the birds I exhibited, and no true Fancier does otherwise. I was informed by Mr. Silcocks, one of the members of the committee appointed to draw up and frame a Standard for Australian Game, that they had adopted the colour of the 'Earl,' a British Game cock of 20 years ago (shown in Wright's work on Poultry) as the ideal Standard of colour. This I regret, as in my opinion, the colour of that bird is too light and gay for a true Australian of the modern type, and for the hen, taking the colour of the 'Countess' in the same work, to which I have no objection, recognising that that is nearly correct. This has been the colour of hen I have always selected for breeding. One hen I exhibited in 1892 of this colour scored first and Special at the Royal, a week after won again at the United Fanciers' Show, again scoring a week or two later at the N.S.W. P.P.C. and D. Society Show under three different Judges. This hen was exhibited in 1896 at the meetings formed to draw up a Standard, held by the N.S.W. P.P.C. and D. Society and the Poultry Club of N.S.W., and her colour was accepted as being the correct one.

"When I first started exhibiting 'Colonials,' in 1879, the Fanciers of the day were astonished at the size, weight, reach, shape, and carriage of tail of my specimens. At that time the birds shown were short, stumpy, feathery, and with heavy tails, the sickles being very broad. I was seldom able to take my exhibits home. They were quickly bought up by Fanciers, who could see the difference between a clumsy, heavy-actioned bird, and one which possessed some elegance of form and feather. I remember at one time making a wager of £2 with Mr. Sid. Norman, who stated a pair of Black-Red hens exhibited by me would not weigh 14 lbs. the pair. They were weighed, and turned the scale at 16 lbs. 1 oz. The average weight of a fair

specimen of the male sex should be, at ten months old, $9\frac{1}{2}$ to 11 lbs., and I have now in my yard cockerels, five months old, which turn the scale at 6 $\frac{1}{2}$ lbs. The grandsire of these cockerels turns the scale at 11 lbs. 12 oz. in ordinary condition, *not fat*, and I am pleased to state that the Standard weight of Show specimens has been increased considerably, assisting in keeping the breed away from the British type, which, unfortunately, was becoming too manifest. Let me add, in conclusion, that no breed of Poultry will give a handsomer return than Australian Game. The hens are good layers of well-flavoured eggs, the best of sitters and mothers. The chickens are extraordinarily hardy, and excellent foragers if given a good range, and for the table no breed of Poultry in existence can surpass them."

SCHEDULE FOR JUDGING MODERN AUSTRALIAN GAME.

(The Standard issued by the Poultry Club of N.S.W., with a few minor additions.)

GENERAL CHARACTERISTICS OF THE COCK.

Head.—Long and strong.

Beak.—Strong, slightly curved, stout at base.

Comb.—Pea or triple (if undubbed) ; in no case to grow further back than a point directly above the back of the eye.

Face, Ear-lobes, and Throat.—Fairly smooth.

Eyebrows.—Slightly overhanging.

Neck.—Long and slightly arched.

Hackle.—Short and close-fitting ; *Saddle Hackle*, short.

Body.—Short, stout, widest at shoulders, and tapering to tail.

Back.—Flat ; shoulders, broad, high, and square.

Breast.—Hard, broad, and full.

Wings.—Medium length, strong, well clipped under the saddle hackles.

Thighs.—Prominent, set on wide apart, long, stout, and muscular.

Shanks.—Evenly scaled and slightly rounded.

Spurs.—Set low down on the shank, and inclining downwards.

Feet.—Flat on the ground.

Toes.—Strong and well spread, the hind toe well extended and flat on the ground.

Tail.—Medium in length, slightly drooping in carriage, and carried moderately full ; the sickle feathers fairly abundant, and slightly curved.

Plumage.—Sound, glossy, and hard.

Size.—Large ; minimum weight of adults, 9 lbs.

General Appearance.—Upright, active, and reachy.

GENERAL CHARACTERISTICS OF THE HEN.

The Hen should resemble the Cock in all points, making allowance for difference in sex. Minimum weight of adults, 7 lbs.

POINTS OF COLOUR IN AUSTRALIAN BLACK-BREADED RED GAME.

IN BOTH SEXES.

Beak.—Dark horn colour.

Face, Comb, Ear-lobes, and Wattles.—Deep, rich red.

Eyes.—Pearl, yellow, or daw.

Shanks and Feet.—Willow or olive.

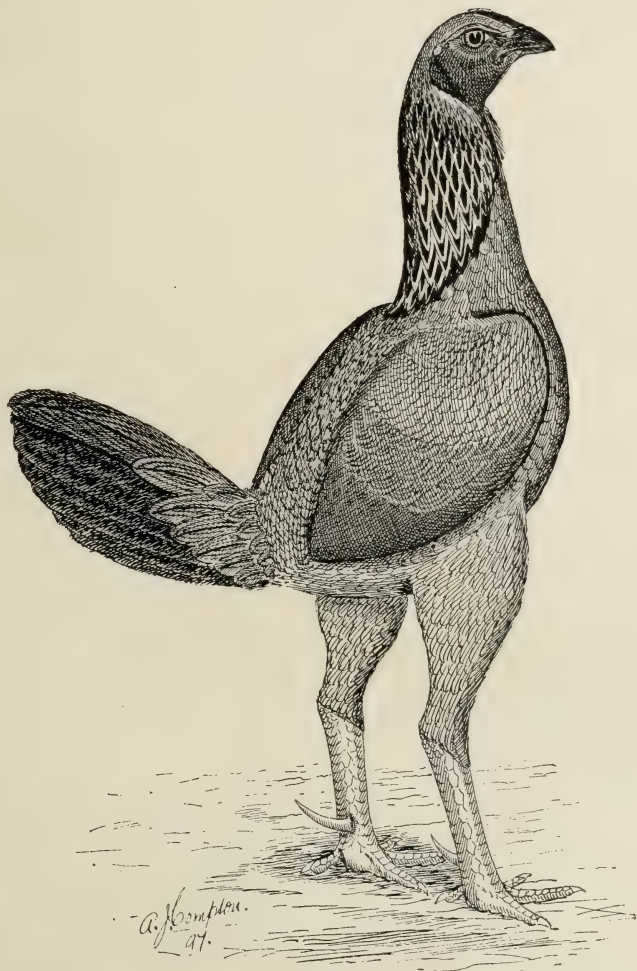
COCK.

Head and Hackle.—Rich, deep red, free from stripes or spots.

Back, Shoulder Coverts, and Wing-bows.—Dark red.

Wing-bars.—Steel-blue.

Breast and Wing-butts.—Greenish-black.



Australian Duckwing Henfeather Game Cock.

Under-parts.—Black.

Wing Primaries.—Black, with edging of bay to outer web on the lower feathers.

Wing Secondaries.—Outer web deep bay, inner web black, with a blue-black tip on the end of each feather.

Saddle.—Rich, deep red.

Tail.—Glossy green-black.

HEN.

Head.—Brown.

Neck.—Yellow, the feathers striped with black in the centre.

Throat and Breast.—Dark salmon, running off to a lighter shade on thighs and vent, each feather showing shafts of a lighter shade.

Body.—Dark brownish drab, or deep, solid partridge brown, evenly and minutely pencilled with markings of black. This marking should have a wavy appearance, and on no account should run into distinct bars.

Tail.—Black; the tail coverts and two top outer feathers of the tail the same as the body colour.

POINTS OF COLOUR IN AUSTRALIAN DUCKWING GAME.

IN BOTH SEXES.

Beak, Face, Comb, Ear-lobes, Wattles, Eyes, Shanks, and Feet.—The same as in Black-Reds.

COCK.

Breast, Tail, Wing-bars, and Under-parts.—Same as in the Black-Red.

Hackle and Saddle.—Creamy white.

Back, Shoulder Coverts, and Wing-bows.—Deep, bright gold.

Wings.—Primaries, black, with edging of white to outer web; secondaries, clear white on the outer web, black on the inner, the tip of each feather being marked with steel-blue.

HEN.

Head and Neck Hackle.—White, with distinct black stripes on each side of a white shaft, down the centre of each feather.

Back and Wings.—Grey or ash colour, evenly and minutely pencilled with markings of black. This marking should have a wavy appearance, and on no account should run into distinct bars.

Breast.—A lighter shade of salmon than that of the Black-Red hen, the thighs and under-parts running correspondingly greyer.

Tail.—Black. The tail coverts and two top outer feathers of the tail the same as the body colour.

POINTS OF COLOUR IN AUSTRALIAN PILE GAME.

IN BOTH SEXES.

Beak, Shanks, and Feet.—Yellow or willow, the former preferred.

Face, Comb, Ear-lobes, Wattles, and Eyes.—The same as in Black-Reds.

COCK.

White where the Black-Red cock is *black*, red where he is red.

HEN.

Head and Neck Hackle.—Golden, with a white stripe down the centre of each feather.

Back, Wings, and Tail.—Creamy white.

Breast and Throat.—Dark salmon, running off to a lighter shade on thighs, the under-parts and vent being almost white, each feather showing shafts of a lighter colour.

POINTS OF COLOUR IN AUSTRALIAN BLACK GAME.

IN BOTH SEXES.

Beak, Eyes, Shanks, and Feet.—Black.

Face, Comb, Ear-lobes, and Wattles.—Deep rich purplish-red.

Plumage.—Metallic glossy greenish-black throughout.

POINTS OF COLOUR IN AUSTRALIAN WHITE GAME.

Beak, Shanks, and Feet.—Yellow.

Eyes.—Pearl, yellow, or daw.

Face, Comb, Ear-lobes, and Wattles.—Rich bright red.

Plumage.—Pure spotless white throughout.

POINTS OF COLOUR IN AUSTRALIAN HEN-FEATHERED GAME.
COCK.

Feathered as hens.

IN BOTH SEXES.

Colour.—The same as that of the hens of the various varieties of the Australian Game hens, such as Black-Reds, Duckwings, Blacks, etc.

SCHEDULE OF POINTS FOR JUDGING AUSTRALIAN GAME.

(A bird perfect in shape, size, colour, comb, and condition to count 100 points.

Relative importance of defects and order in which they are to be taken into consideration in Judging.

POINTS TO BE DEDUCTED.

1. Want of symmetry and strength	...	...	...	...	...	...	...	...	...	15
2. " " size	...	...	...	...	...	...	...	...	...	10
3. " " condition	...	...	...	...	...	...	...	...	...	10
4. " " hardness in handling	...	...	...	...	...	...	...	...	...	10
5. Bad or faulty plumage	...	...	...	...	...	...	...	...	...	10
6. Legs too fine (5), flat-shinned (5)	...	...	...	...	...	...	...	...	...	10
7. Tail too heavy (5), badly carried (5)	...	...	...	...	...	...	...	...	...	10
8. Too much hackle	...	...	...	...	...	...	...	...	...	10
9. Bad head...	...	...	...	...	...	...	...	...	...	5
10. " feet and legs	...	...	...	...	...	...	...	...	...	5
11. " coloured eyes	...	...	...	...	...	...	...	...	...	5

100

DISQUALIFICATIONS.

Roach back, crooked breast, duck feet, wry tail, or any other deformity or disease ; comb any other than triple or pea on hen ; feathers on shanks or feet ; any fraudulent dyeing, dressing, or trimming, beyond the dubbing and dressing of the heads of cocks.



CHAPTER XXXIII.

ASEEL GAME.

THE Aseel, or *True Indian Game Fowl*, is at once striking, and of strongly marked characteristics. The best strains are possessed of indomitable courage, strength, and endurance. The breed has a 'style' peculiarly its own, exhibiting an almost incessant restlessness, accompanied by a weaving to and fro kind of motion of the head and neck. They are the most quarrelsome and pugnacious (both cocks and hens) of all Game Fowls, and, unless separated, will fight to the death. It is this quarrelsome disposition which prevents many Fanciers taking up the breed. There is no possibility of keeping even two hens together in a confined space, as at times, without the slightest provocation, one will bully and thrash the other, and once they see blood, they thirst for more, and rarely leave off till one is killed. There are but few pure specimens now to be found in the Colonies; but we have seen them some years back in great numbers, being bred from some importations from Bengal (India).

The breed was first imported from India to Great Britain by Sir George Gilbert, over sixty years ago, and were known as "Indian Game." They were crossed with the Pheasant Malay, at that time the latter variety being quite common in Cornwall, and it is thus surmised that the breed now known as Laced Cornish-Indian Game was produced. The name was changed at a later date to Aseel—an Arabic word, denoting "thorough-bred"—in order to distinguish them from the cross-bred birds, which usurped the name "Indian Game." There are many specimens found in India, of various colours, such as Reds, Greys, Browns, and Spangles, more or less laced, and we know of one noted Pit strain in this country called the "Scutty" Fowls, the hens of which to this day present the lacing in a more or less degree, though they have been crossed and re-crossed with various fighting strains, quite alien to the original stock.

There is no Fowl that handles so amazingly hard, their appearance being very deceptive as to their actual weight. The true type is very low set on the leg, the head erect, the body from shoulder to tail showing a good incline, the tail carried in a drooping position, but not whipped up, or carried closely together, but rather full than otherwise, appearing somewhat similar to a small, narrow, inverted scoop. The plumage varies considerably. No fixed Standard of colour is found even amongst the purest strains, and it is an old truism that a good Aseel cannot be a bad colour. The most prominent characteristic of the breed is the comb, which, as a rule, is pea or triple, though, occasionally, a knobby, or Malay-like, comb is found.* The head is short, broad, and rather round; the eyebrows slightly overhanging the eyes, the latter being sunken; the beak short, stout, very wide at the base, and well curved. The cock's neck hackle bunches just below the back of the neck, finishing off very quickly, the points scarcely reaching between the shoulders; back, very wide at the shoulders, short, and finishing off quickly to the stern; shoulders, high and square, and with great substance; breast, hard, full, and prominent; legs, set very wide apart, the breast-bone well covered with hard, solid flesh, the bird being almost straight across the breast from thigh to thigh when held in the hand; thighs, short, thick, and of great muscular development; legs and beak, mostly bright yellow; the shanks and toes, short, stout, and well scaled. In this breed the back, or hind toe is much shorter in comparison with any other variety of Poultry. The hen is similar to the cock in every respect, making allowance for difference in sex. As layers, the hens are very poor, probably the worst in the Poultry kingdom; but as a Table Fowl the breed is an easy first, if mere size of carcass is not considered.†

* We are inclined to doubt the purity of an Aseel with a MALAY comb.

† Mr. Tegetmeier that most rigorous of Table Fowl Judges, asserts that "The Aseel, or true Indian Fighting Cock, is, perhaps, the most plump and meaty bird that exists."

The colours chiefly found are Blacks, Whites, Greys, Black and White, Spangles, Brown-Reds, and Gingers. The cocks average 5 to 6 lbs., the hens 4 to 5 lbs. From their appearance one would not think they even approached the weights quoted.

The breed possesses extraordinary prepotent powers, and has been used to a great extent in the manufacture of some of the present-day improved breeds.

To a Fancier who has a leaning towards a breed of Poultry that will never become common, the Aseel offers more than ordinary inducements.

The following is the Standard adopted by the Aseel Club (Eng.) :—

STANDARD OF PERFECTION AND GENERAL CHARACTERISTICS.

COCK AND HEN.

Beak.—Very strong, fine-grained, and somewhat short; lower mandible, thick and straight; upper mandible, thick and slightly curved.

Comb.—Triple, or what is termed "pea comb," the smaller the better, very hard and horny.

Head.—Short and small, though broad between the eyes and jaw, and thick at the base.

Eyes.—Bold, prominent, and brilliant, set back in the head.

Facc.—Of fine texture, though hard in substance; ear-lobes and wattles as small as possible, the hen having little or no wattle.

Throat.—Clean, not prominent or fleshy.

Neck.—Round, hard, muscular, and powerful, of medium length and same width throughout, curved slightly at the back, and seated high between broad shoulders.

Back.—Broad at shoulders, short, and quite straight, no inclination to roach back.

Breast.—Wide, short, and flat, carrying no fluff, and almost naked at point of breast-bone.

Stern.—Narrow in comparison with shoulders, but thick and strong in hand at root of tail, this latter being a great indication of strength.

Wings.—Strong, short, and carried level, standing well out from the shoulders, showing a bare spot at the first joint.

Tail.—Slightly drooping, and short, with narrow, hard feathers.

Sickles in Cocks.—Very fine, hard, and short, tapering like a scimitar to three or four inches from the ground. These in old cocks will appear parti-coloured, which is no detriment.

Tail Coverts.—Short, spare, and very hard, difficult to break, the tail of the hen close and compact.

Thighs.—Thick, strong, and muscular, and well apart, covered with little feathers.

Legs.—Short, but not dumpy; straight and quite clean, with closely-affixed, regular scales.

Feet.—Short, thick, and straight; toe-nails the same, straight hind toe to be preferred, though what is termed "duck-footed" is not a disqualification.

Plumage.—Hard, close, and wiry, devoid of fluff.

Body in hand.—Very firm, hard, heavy, and evenly balanced.

Carriage and Shape.—Straight and upright, angular throughout, and not too gamey in general appearance.

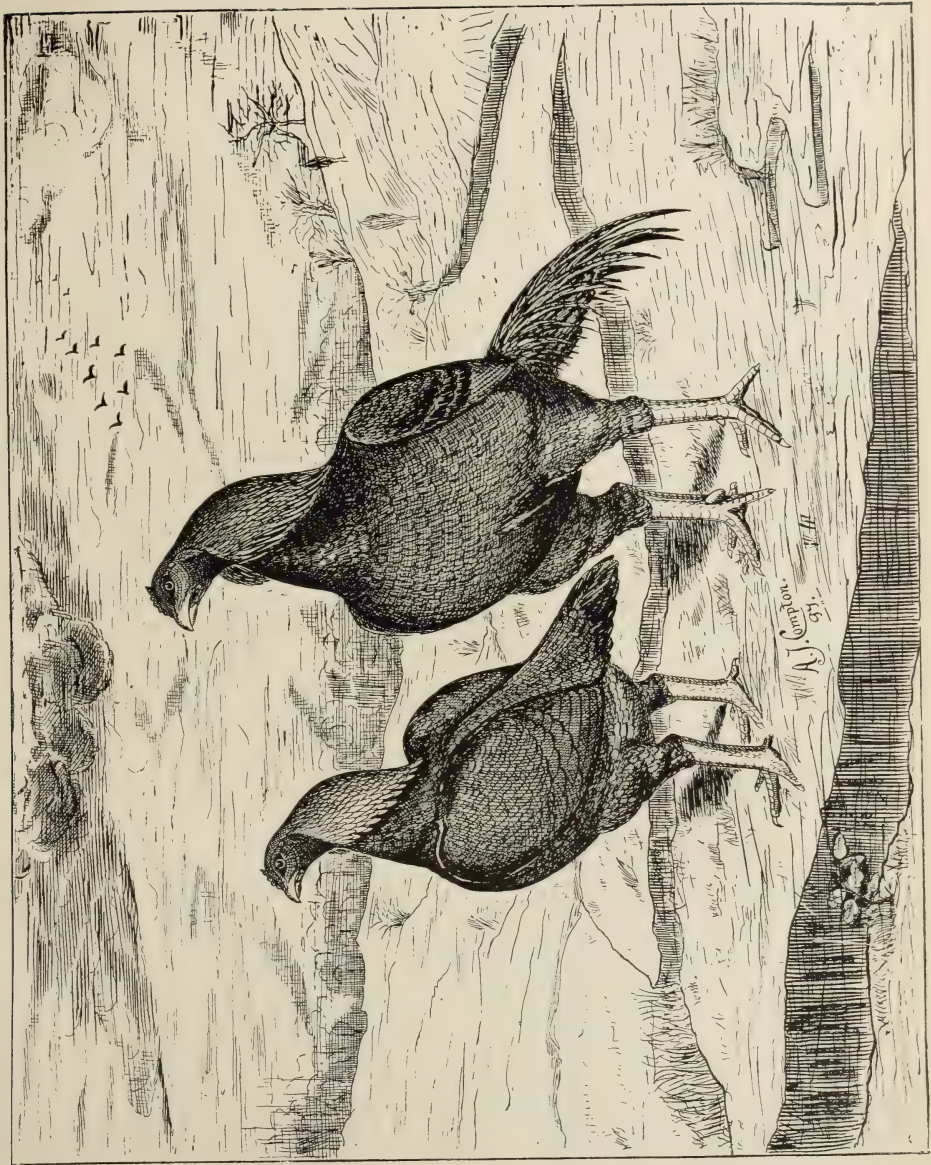
POINTS OF COLOUR.

Comb, Face, Jaws, and Throat.—Red.

Eyes.—Pearl, all shades of white, pink, and yellow.

Beak and Legs.—To match, though of no definite colour.

Remainder of Plumage.—No final Standard of colour can be framed for Aseel, as they are yet of no fixed hue. The principal colours are red, black, grey, red-spangle, black-spangle, yellow, and white.



Ascel Game.

CHAPTER XXXIV.

SPANISH.

THE Spanish Fowl appeals strongly to the genuine Fancier as exhibiting the highest type of good breeding, ranking among the very oldest of existing races of our Domestic Poultry. The history of this breed can be traced in an unbroken line for centuries, while their powers of prepotency, great merit, and characteristic traits have descended to us through generation and generation. No breed of Poultry will improve the Black Spanish by crossing. Even a violent cross with one or other of old-established breeds, such as the Malay, will have little effect in smothering the strongly-marked traits of the Spanish. It is this stubborn fact which has kept the breed's purity unsullied for so long. In every feature is their high breeding shown. Their haughty bearing, brilliant red combs and wattles, the white face and lobes peculiar to themselves, in combination with their brilliant glossy-black plumage throughout, render them the most striking, as well as the most distinctively thoroughbred, of our Domestic Poultry. Their ancient lineage has gained for them the title of "the Aristocracy of the Poultry World;" but the appearance of many other varieties, some of them offshoots of the Spanish themselves, has led to a crusade against the breed, with the natural consequence that they are now, without exception, "the most abused breed of Poultry." The greater portion of the objections raised against their merits are caused solely by the breeding to exaggerated and arbitrary Standards, the true merits of the Fowl being sacrificed for purely imaginary virtues.

With the Spanish Fowl, it being a *Utility breed*, we are distinctly averse to the sacrificing of Utility virtues for mere Fancy Points, as if the latter are unaccompanied by practical merit, the popularity is short-lived. But that, apart from the continual improvements the Fancier is desirous of making in every breed, and which experiments have been carried to the bounds of absurdity in the case of the Spanish Fowl, it becomes astonishing that the intrinsic merits of the breed have for such a length of time maintained a longer existence than any other variety, surviving the continual changes of fashions which are brought about by every new candidate for popular favour.

The hens possess a high reputation as egg-producers. The pullets generally begin laying at about six months old, and, taking into consideration the size of the eggs and the number produced, are scarcely surpassed by any other breed.

It is as a cross for producing stock for egg-production that the Spanish Fowl stands pre-eminent. The cocks are invaluable for this purpose. The prepotent force, concentrated as it is by centuries of high breeding, works a phenomenal change in the desired direction in a single season.

We can conscientiously state that for the general town or suburban Fancier, who requires an attractive-looking Fowl, and one whose plumage will not soil to any extent by the ordinary surroundings of limited space, moderate accommodation, and want of a grass plot, yet, withal, a good laying breed, and a moderate table bird, that the Spanish Fowl is almost unequalled. We do not mean the huge, flabby-combed, half-blind, white-faced specimens too often seen in our Show pens; but the graceful, active birds bred on opposite lines to their Exhibition brethren, practical qualities being the prime consideration for their existence. Specimens bred on Utility lines will quickly remove the prejudice now existing as to the breed being delicate, and purely ornamental, and show conclusively that for a general purpose Fowl there is no variety better adapted to prove a source of pleasure and profit than the White-faced Black Spanish.

The breed, being one of the very oldest varieties of pure-bred Poultry, takes rank with the Dorking and Game in being bred pure long before the advent of Poultry Shows. Its popularity as an egg-producer has to a great extent declined within the last thirty years, owing to the cultivation and improvement of many

varieties which are quite the equal, and in many instances superior, in this qualification, and partly may be attributed to the craze for Fancy points, which attacked the breeders of this famous Fowl to its detriment, with the result that they are not now nearly so generally kept as a quarter of a century back. As a layer of *large-sized* eggs it is still questionable if any variety of Poultry can surpass the Spanish, and in appearance none look more aristocratic. The actual origin of the Spanish Fowl is still a matter for conjecture, but Fowls in which minor differences only are observable are found all around the coast of the Mediterranean, the whole of the varieties having one well-defined characteristic in common—that of the absence of the incubating instinct.

To Mr. Samuel Harkness, of the Jesmond Poultry Farm, Riverstone, N.S.W., we are indebted for the following remarks. Mr. Harkness writes :—

“*White-Faced Black Spanish* have a stilty, proud appearance, standing very high on the leg. Their general carriage being measured and stately, and coupled with the peculiar and constant manner of shaking the head and wattles, give them, when in condition, a most attractive appearance. The white face and lobes also lend an additional charm to their *ensemble*, but the latter point has been developed and fostered to such a great degree that in many specimens, that which is in modification a beautiful and characteristic trait, has become a monstrosity, some birds becoming quite carunculated in face, the white growing over and closing the eyes.

“There is no denying the fact that the popularity of the Spanish Fowl is decidedly on the down grade, and if something is not soon done the classes for Spanish will be effaced from every schedule in the Australian Colonies. This would be a deplorable state of affairs, as the breed has many excellent qualifications outside of mere Fancy requirements. The Spanish Light-Brahma Cross gives an excellent laying Fowl of fine frame and size, active in habits, and not without merit for table purposes. The cross with the Malay produces one of the finest Fowls possible, nearly always of brilliant black plumage, good layers, and high up as a Table Fowl, so that the breed should be fostered to a greater extent than it unfortunately is at present. Possibly the secret of the breed's present unpopularity lies in the vexed question of the trimming the birds' faces require for exhibition, and which, if skilfully done, would pass an expert. This scientific art of trimming (which can only be gained by actual study and practical experience) prevents many taking up the breed, thus becoming one, if not the principal, reason detrimental to its popularity. The wide difference in appearance between an untrimmed and trimmed bird is certainly a severe handicap on the former in the Show pen. The hairy feathers on the face are generally removed by the aid of tweezers. This considerably improves the appearance of the bird; but there are many who would not think of breeding birds that required this sort of proceeding to give them a possible chance in the Show pen, and is without doubt the opinion of Fanciers outside the Spanish Fancy, and so long as this practice is allowed this beautiful breed is doomed to remain in the hands of a few, the numbers of which are growing less each successive year. Another cause is that breeders of this variety have sacrificed almost every distinctive character of the breed—style, length of limb, and the sprightliness that formerly characterised the breed—and all for what? Mere quantity of the white face, with the outcome that cocks, and even cockerels, are bred and exhibited with their eyes almost closed up (and often quite closed) through the white growing and obstructing the sight, and they present a most miserable and pitiable appearance in the Show pen or yard. The only plan to obviate this unfortunate state of affairs is to do away with these abnormal white faces, substituting *quality* for *quantity*. At present, a breeder to be successful, must produce birds with plenty of white in face, so that in breeding for this exaggerated point for some years the birds become nearly or quite blind, and this often requires the growth cut away from the eyes of young cockerels when they are about six months old.

“In breeding Spanish for Exhibition purposes, and even more so where the birds mated together are alien in blood, the best and most satisfactory results will be obtained by selecting the brood cock or cockerel with the smoothest face that can be procured, and mating him with hens that are rather rough and large in face, though at the same time it will often require breeding in and in again before birds will be produced fit for Standard requirements. It is an undoubted fact that most of the very best strains of Spanish have been



Black Spanish Cock.

Bred by and the property of Mr. S. Harkness, Jesmond Poultry Farm, Riverstone, N.S.W.
Winner of 1st, Balmain Poultry and Dog Show.

perfected by the closest in-breeding; and, as a matter of fact, no breed of Poultry crossed with *another strain* of the same variety will deteriorate as much as the Spanish in required Fancy points if crossed. Spanish chickens, when young, are extremely difficult to select, and often those which give the greatest promise at an early age turn out disappointingly; and, on the other hand, many that look anything but promising turn out the best of the season's breeding, so that it is well to give the chickens time before determining which are to be kept and which discarded. However, a rule which may be adopted without hesitation is to discard all chickens which are plain red in face; those, on the other hand, which present a bluish appearance in face, with a gradual tendency to turn to white as they become older, will invariably turn out the best specimens for the Show pen. Spanish Fowls, with increasing age, frequently moult white feathers in the plumage, and in some instances moult completely white. This is no evidence of impurity of blood, as birds, though white or partly white in plumage, will produce chickens as black as could be wished. On the other hand, some strains will occasionally sport, some white chickens being produced; and these, evidently being bred together, have produced the variety known as White Spanish.

"One great feature in favour of the Spanish Fowl is that it will bear confinement well, and even under these conditions the hens will keep up their high character as layers of large white eggs in abundance. The pullets nearly always commence to lay at about six months old. The chickens are very precocious, and the cockerels may be distinguished from the pullets at an early age.

"In feeding Spanish, beginners are very apt to give the birds a quantity of heating and too stimulating food to prepare them for the breeding or Show pen, and in the majority of cases this class of diet brings about a most disastrous state of affairs, the face and lobes breaking out into eruptions, the breed then being considered delicate. The best course to follow, when preparing the variety for Exhibition or for breeding purposes, is to keep their blood cool by avoiding all over-stimulating diets. In preparing the young stock for the Show pen, the birds should be placed in separate houses, completely under cover, and in a semi-darkened state. By keeping them in separate compartments all risk of the birds pecking or injuring one another is avoided, the faces and lobes of this variety being highly susceptible to the slightest injury. The subdued light in the pens assists considerably in bleaching, thereby improving the appearance of the face and lobes. In feeding, to make the faces nice and white, bread and milk given warm in the morning, a few scraps of meat at mid-day, and good sound wheat at night, with a plentiful supply of green food given daily. This latter should never be neglected, as it is a most important factor in bringing the birds up to the state of perfection desired. A little hemp seed given about twice or three times per week, on alternate days, with the scraps at mid-day, will be highly relished by the birds, and in from three to four weeks with this treatment the birds will be in high condition for the Show pen. Next in importance to the feeding is the treatment of the face and lobes. To attend to this properly a piece of soft sponge, some nice soft soap such as borax or glycerine, a soft towel, pair of tweezers, some zinc powder, and a small powder-puff are required. Tie the bird's legs together with a piece of tape or calico, and place the bird's legs between your own. Take the tweezers and carefully remove the hairy feathers from the face and lobes, being careful to leave a row of feathers between the base of comb and white of face, after which thoroughly sponge the face, comb, and lobes well with soap and warm water; dry thoroughly, especially in the folds and creases (this latter is highly important), afterwards applying with the powder-puff some zinc powder. If this latter operation is performed daily, removing any hairy feathers which appear, the face and lobes will quickly develop and become beautifully soft and white, and it is also well to give the birds a large teaspoonful of castor oil once a week. This, in conjunction with the green food supplied daily, keeps the birds pure and cool—two important considerations in the successful preparation of Spanish Fowls for the Show pen. Very little further attention will be required beyond the washing of the legs and feet the night previous to sending the birds off to the Show. My *beau ideal* of a Spanish cockerel fit for Exhibition is as follows: The beak should be long and stout, and of a dark horn colour; the comb medium or rather small, bright red in colour, single, perfectly erect, well and evenly serrated, stout at the base, running off gradually thinner to the edge, coming well down to the feathers on the back of the neck, perfectly straight in front, and quite free from thumb-mark or

twist. The serrations of the comb should taper off to a fine point, and not too thick or fleshy; the surface of the comb should be as smooth as possible, though this is a difficult point to produce in birds bred and reared entirely in the open. The head itself should be rather large, being both long, broad, and deep-sided; the eyes large, perfectly free, and open; the face pure white, of soft, delicate texture, smooth, and as free as possible from folds or wrinkles. The white should grow well behind the ear, and rounding with a nice curve to the bottom of the lobe, which should be broad and open—not coming to a point—coming up again in front of the neck and joining the wattles, which latter should be of the brightest red, and long and thin; the inside of the upper part and the skin between the wattles, white. The neck long and nicely arched, the hackle feathers abundant, well covering the shoulders; the breast well rounded; the body also nicely rounded, large, but not too long or Dorking-shaped, tapering well to the tail, which should be ample and carried rather high, the top sickles going well past the true tail feathers. The legs should be long, showing plenty of thigh; the colour of the legs should be a medium leaden blue, not too dark, and showing a pinkish tinge on the web of the toe and up the inside and outside of the scales of the legs. The bird should be sprightly and active in his movements, this latter being one of the breed's most prominent characteristics. The plumage should be of the glossiest black, and the bird should have a most commanding and noble carriage. The Spanish hen or pullet should be similar to the cock in beak, eyes, legs, and feet; but the comb, though single and deeply serrated, is rather large, and falls entirely over one side of the face. The face is similar to the cock's, though smaller, and the wattles are much smaller and thinner; but the larger the face is the better, providing it is fine and free from ridges or coarseness, there being no apparent division between the face and ear-lobe. The shape of the hen is very graceful, and carriage much the same as the cock, making allowance for difference in sex.

"It is possible, by a judicious selection of the brood stock, to produce combs on both sexes nearly perfect. To do this, a cockerel should be chosen who is possessed of a moderate-sized comb, *thick at the base as possible, but tapering off to a very thin edge, and with well-pointed serrations*. The hens to match should also be chosen that are good in those points, but which seem to stand up slightly from the head at the base, falling over quickly with a clean arch or sweep, free from folds or irregularities, avoiding large, overgrown, weak, flabby combs, which fall flat over. One peculiarity in the comb of the hens while in moult is, that they assume a most shrivelled up appearance, often assuming a more or less upright position. They will, however, soon go back to their normal condition when the moult is over. It is a rather difficult task to keep the faces and ear-lobes of Spanish always in good condition, owing to an inclination the breed seems to have to a slight eruption, in the form of a yellowish scab on those parts, and which, if neglected, may lead to permanent disfigurement. This is mostly caused by improper food or over-feeding, and should be guarded against by reducing the diet, and bathing the affected parts once or twice a day with warm milk and water, giving an occasional dose in the shape of a teaspoonful of castor oil once a week, and after bathing the affected parts as described in the preparation for the Show pen, applying the zinc powder to the wounds or scabs.

"In judging Spanish, sprightliness and activity should always be taken into account, with proportion, carriage, and condition. Thus, a bird good in these points, and with a moderately good face, should always take preference over one with abnormal development of face, and deficient in other main characteristics."

SCHEDULE FOR JUDGING SPANISH FOWLS.

GENERAL CHARACTERISTICS OF COCK.

Head, general appearance of head aristocratic, large, deep, and full, the skull being well developed, the cheeks being very deep; *Beak*, rather long and powerful; *Comb*, medium in size, single, perfectly straight, and upright, forming a nice arch or curve from back to front, and with the serrations evenly distributed throughout; *Wattles*, very long, thin, and fine in texture; *Face*, large, fine in quality, and as bare of feathers as possible; *Ear-lobes*, very long, and pendulous, but free from folds, creases, or wrinkles, broad and rounded on lower edge; *Neck*, long, carried high, and well back, the hackle long and flowing; *Body*, general appearance upright and active, largest at shoulders, and tapering towards the tail; *Back*, rather

round, and slanting towards the tail; *Wings*, long and powerful, carried tucked up closely to the body; *Breast*, rounded, and carried very prominent; *Legs and Feet, Thigh and Shanks*, long and slender, the hocks sparsely feathered; *Toes*, long, thin, and fine; *Tail*, large, the sickles nicely arched, the whole tail carried rather high, but not squirrel fashion; *Size*, from 6 to 8 lbs.; *General Shape*, rather slightly built, tall, and thin; *Carriage*, very upright and majestic, with constant movement of the head and neck.

GENERAL CHARACTERISTICS OF HEN.

Similar to the cock in all points, making allowance for difference in sex, with the exception of the comb, which falls over the side with a clean sweep, almost entirely hiding one side of the face.

COLOUR OF WHITE-FACED BLACK SPANISH.

In Both Sexes.—*Beak*, horn colour; *Comb and Wattles*, bright red, except the inside of upper part of the wattles, and across the throat, which are white, similar to face; *Face and Cheeks*, the purest white, of a soft, kid-like appearance, the white extends over the eye in the form of an arch, extending well back, encircling the ear (the latter appearing as a black spot), thence turning down, merging into the ear-lobe, which is of the same pure spotless white as the face. The face should be as free from folds or unevenness as possible, and the white should not grow over the eye, but leave the sight perfectly clear; *Legs and Feet*, medium leaden blue, the webs of toes a pinkish tinge, this colour running up the inside and outside of the scales of the shanks; *Plumage*, throughout a beautiful, lustrous, pure black, especially in the cock.

COLOUR OF WHITE SPANISH.

The same in all points as the White-face Black variety, with the exception of the plumage, which is a pure spotless white throughout.

VALUE OF DEFECTS IN JUDGING.

WHITE-FACED BLACK OR WHITE SPANISH.

(A bird perfect in shape, style, colour, face, size, and condition to count 100 points.)

DEFECTS TO BE DEDUCTED.									
Bad shaped comb	...	...	...	...	...	...	...	...	10
Deficiency in size of Face	...	...	...	...	...	...	...	...	10
Roughness and want of quality in face	...	...	...	...	...	...	...	...	10
Sight obstructed	...	...	...	...	...	...	...	...	10
Ear-lobes folded, or wrinkled	...	...	...	...	...	...	...	...	10
Scabs or sores in the white of face and lobes	...	...	...	...	...	...	...	...	5
Faulty plumage	...	...	...	...	...	...	...	...	10
Want of size...	...	...	...	...	...	...	...	...	10
Want of symmetry	...	...	...	...	...	...	...	...	10
Want of condition	...	...	...	...	...	...	...	...	15
									100

DISQUALIFICATIONS.

Cock's comb falling over, twisted in front, side sprigs; hen's comb erect, any red stain in face, plumage of any other colour than pure black on the Black variety, or pure white in the White variety; legs of any other colour than leaden colour, blue, or black; crooked backs, or any bodily deformity, pronounced squirrel tail, combs trimmed or pierced, trimming away of the feathers between the top of face and base of comb; or any other fraudulent dyeing or dressing of the plumage, face, legs, and feet.

We are indebted to the kindness of Mr. W. Samson, of Footscray, Victoria, the Hon. Sec. of the Victorian Spanish, Andalusian, Minorca, and Leghorn Club for the appended Standard, issued by the Club, for White and Black Spanish.

STANDARD FOR JUDGING SPANISH.

GENERAL CHARACTERISTICS OF COCK.

Head, general appearance of head very large and deep, though aristocratic; *Skull*, large every way, but especially deep in the cheeks; *Beak*, rather long, but not thin; *Comb*, very large, single,

perfectly straight, and upright, of a handsome arch or curve, and with the serrations symmetrically formed and disposed; *Wattles*, very long, fine, and thin in texture; *Face*, large, bare of feathers, and fine in quality; *Deaf-ears*, very long, and pendulous, but free from folds, duplicature, or wrinkles, broad and rounded on lower edge; *Neck*, long, carried high, or well back, and with flowing hackle; *Body*, general appearance light and active, large at shoulders, and to tail somewhat like the Game Fowl; *Back*, rather round, and slanting to the tail; *Wings*, long, and well-developed, but carried tightly to the body; *Breast*, rounded, and carried very forward; *Legs and Feet*, both legs and thighs long and slender, the hocks perfectly clear; *Toes*, long and thin; *Tail*, large, the sickles very arched, and carried high, but not so high as to be squirrel fashion; *Size*, medium, averaging 6 lbs. to occasionally 7 lbs.; *General Shape*, rather slender looking, as if thin; *Carriage*, very upright and strutting, with much movement of the head and neck.

GENERAL CHARACTERISTICS OF HEN.

In all respects resembling those of the cock, except that her comb falls over to the side, almost or quite hiding the face.

COLOUR OF WHITE-FACED BLACK SPANISH.

In Both Sexes.—*Beak*, dark horn colour; *Comb and Wattles*, brilliant red, except the inside of upper part of the wattles and across the throat, which are white; *Face or Cheeks*, pure white, resembling the finest dressing and quality of white kid, the white to extend high over the eye in an arched form, reaching far back, clearly behind (or so as to encircle) the true ear, which appears as a black spot upon it, and thence turning down merges into the ear-lobe, which is of the same pure and brilliant white; the *Face* should be as free from folds or projections as possible, and leave the sight perfectly free; *Legs and Feet*, a dark leaden blue, or almost black; *Plumage*, all over pure deep black, with as much green gloss as possible, especially in the cock (when the gloss is very high, it often assumes a purple tinge, especially in the cock's hackles).

COLOUR OF WHITE SPANISH.

The same as for the White-faced Black Spanish, except that the plumage is a pure spotless white, instead of glossy black, the beak and legs generally remaining dark in this variety.

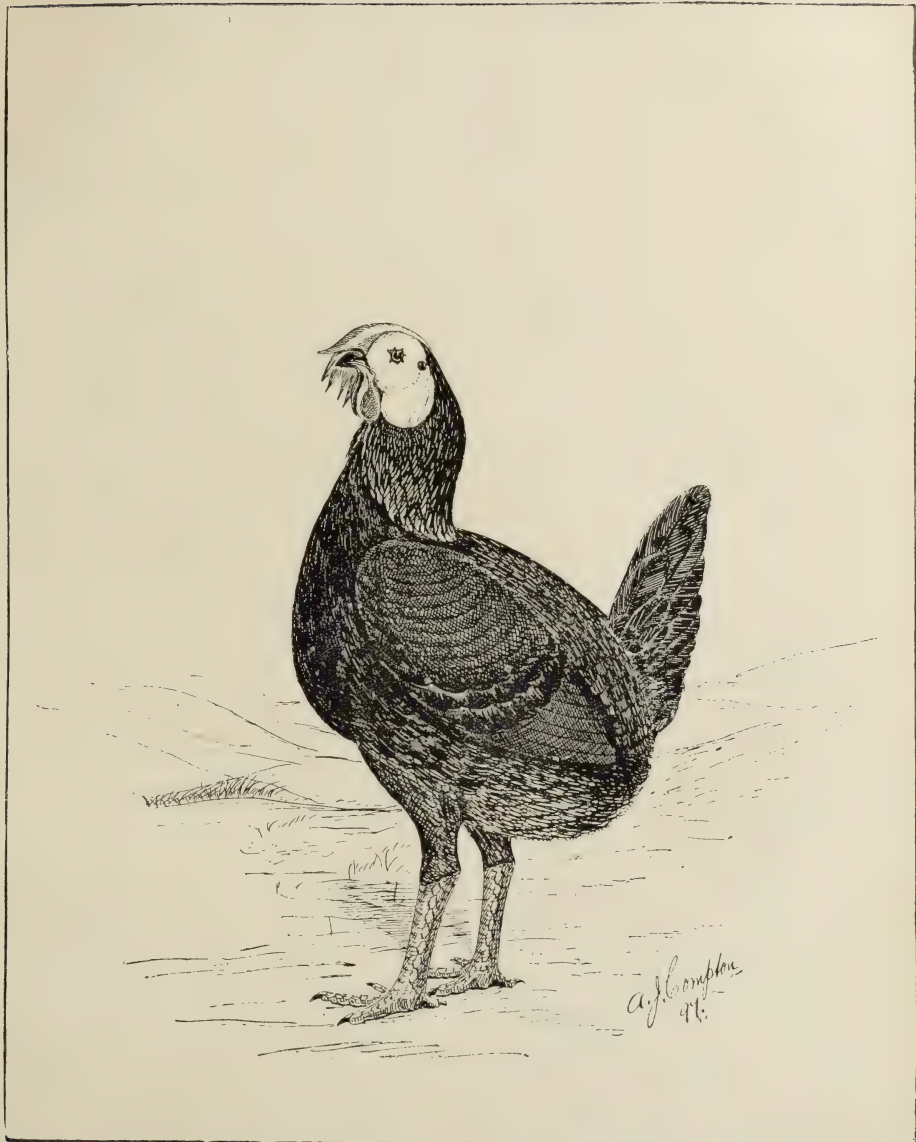
A Standard by which the Breeder can Judge the value of defects in the White-Faced Spanish.

(A bird perfect in shape, style, colour, face, and condition to count in points 100.)

Bad shaped comb	10
Deficiency in size of face	10
Roughness or want of quality in face	12
Sight obstructed	12
Ear-lobe folded, wrinkled, or duplicated	10
Scabs or blemishes in the face	8
Too scanty hackle	6
Faults in plumage	12
Squirrel tail	9
Want of size	8
„ „ general symmetry	18
„ „ condition	15

DISQUALIFICATIONS.

Cock's comb falling over, or twisted in front, or hen's erect; any decided red in the face; plumage of any other colour than pure black in the Black breed, or pure white in the White; legs of any colour but dark lead colour, blue or black; crooked backs, or any bodily deformity; combs in any way trimmed or pierced; trimming away of the feathers between top of the face and base of the comb, or any painting on the face.



Black Spanish Hen.

Bred by Mr. S. Harkness, Jesmond Poultry Farm, Riverstone, N.S.W.

Winner of 1st Balmain Poultry and Dog Show, 1895. 1st N.S.W. P.P.C. and D. Soc., 1896.

CHAPTER XXXV.

ANDALUSIANS.

THE first notice of this breed of Poultry was about forty years ago, some specimens being imported into England from Andalusia, in Spain. Many of the original importations had small, upright combs (both cocks and hens), somewhat similar to the old-fashioned Game Fowl. These birds were crossed with the White-Faced Black Spanish, in order to improve them in head points. That this has not been an unmixed blessing is shown, that even at this remote date the chickens vary to a great extent in colour, but by careful selection and preference in mating a great deal of this failing has been overcome. The breed possesses most of the main characteristics of the rest of the Spanish Family, the hens rarely ever evincing a desire to incubate. When of good colour and markings they rank amongst the handsomest and most ornamental of our Domestic Poultry, and at the same time possess the great merit of being among the best, *if not the best*, egg-producers, the faulty-coloured hens in particular always excelling in this qualification.

For the following notes on this valuable variety we are indebted to Mr. H. Montgomerie Hamilton, of Petersham, N.S.W., an enthusiastic admirer, breeder, and exhibitor of the Blue Andalusian. Mr. Hamilton writes :—

“Andalusians are, no doubt, closely related to the breeds of Fowls known as Minorcas and Spanish, and appear to have been originally natives of the same country, and, like the former, to have been first introduced into, and bred in, the South-West of England. The specimens of those early days were, however, very different in appearance to those of the present time. The illustration in the first edition of Mr. Lewis Wright's book shows birds with plumage uniformly grey throughout, with no trace of the lacing which is now a *sine quâ non*. It may, indeed, be said that, as regards the main characteristics of shape and colour, the ideal to be aimed at has undergone somewhat pronounced changes. At first the colour was all grey, while the shape was of a decidedly “Gamey” type; then lacing was introduced, and the shape altered to more of the Leghorn type; while at present there is a reversion to the original shape, but the lacing (on a rather paler and bluer shade of ground colour) is retained.

“Ever since their first introduction Andalusians have always been much admired, and their good qualities highly appreciated, but owing to the difficulty of producing Show birds, and the fact that *all* the chickens do not come blue, they have not ‘caught on’ or been ‘boomed’ like some other—in many respects inferior—breeds.

UTILITY.

“From the economical point of view Andalusians take high rank, for few, if any, breeds can compare with them as egg-producers, while they are easily reared and managed. In N.S.W. many Poultry Farmers have testified to their value. Mr. Board places them almost at the top of his list, with an average of 185 eggs per hen per annum; and their eggs, as is well known, are of the largest size, weighing 2 to 2½ oz. each. Again, it is the common experience that the pullets commence to lay very early, often when only four or five months old, and the hens go on laying well till they are of a great age, though it is doubtful if it pays to keep them for this purpose after they have attained their third year. One noticeable feature of the breed is the length of time they lay without a break. Many instances have been quoted of periods of fifteen and more months, with only a slight irregularity during the moulting season, which with them is rather later than with most other breeds.

Another good point is that they do well in confinement, though, of course, this is to be avoided when possible. They are very gentle and tractable, and it has been said that a 6 ft. wire fence will suffice to keep them in; but that has not been my experience, as I have found them very ‘flighty.’ No doubt a great deal

depends on circumstances, and if the run be fairly large, and there is nothing about the fence to tempt them up, they will be content to remain below. The Fancier would do well, if possible, to cover the top as well as the sides of the pen with wire netting; but to the Farmer, or to anyone else whose space is unlimited, or who does not desire to mate his birds in any particular way, this flightiness does not matter, and to my mind there is no prettier sight in the Poultry world than a number of 'true blues' at large in a well-grassed paddock.

"The fact that the chickens come white or black, or black and white, as well as blue has been mentioned, but this is of no importance in the connection now under consideration; indeed, my experience has been that these 'off-coloured birds' are, if anything, the best layers.

"Another feature of the breed is that the hens are non-sitters, a fact that may suit some and not others, but, now that incubators are so largely and successfully used, it will probably be considered rather an advantage than otherwise.

"As Table Fowls, Andalusians have not been given so high a place as they deserve. They are certainly not as large as some other breeds, and that they have dark legs would (most absurdly, I think) tell against them, at least in the English market; but their flesh is white and sweet, and they have plenty on the breast when in proper condition. Finally, for crossing to improve egg-production in a mixed flock of hens the cockerels are very useful, and for this purpose the off-coloured ones should find ready sale.

FANCY POINTS AND STANDARD.

"For the Fancier, Andalusians possess very special attractions. Even as now seen they are very pretty, and perfection has by no means yet been reached, so that there is something to work for in that direction. Then there is that oft-quoted difficulty of getting them to breed true to colour, which to the true Fancier is surely an incentive to further exertion, for by careful selection a time must come when that reproach will be a thing of the past; even now great strides are being made in that respect. I have no sympathy with those 'press-the-button' people who wish to have only to put down so many eggs to get as many chicks up to Standard form. Something to strive after, however difficult of attainment, seems to me to be the essence of the cult.

"Turning, then, to characteristics of the breed, which it will be the aim of the Fancier to produce, the following is:—

THE STANDARD ISSUED BY THE L., P.-R., AND ANDALUSIAN CLUB.

Colour of Cock and Hen.

Beak.—Dark horn colour; *Eye*, bright orange or red; *Comb*, *Wattles*, and *Face*, brilliant red; *Ear-lobes*, pure opaque white; *Legs*, dark leaden blue; *Breast*, a deep blue; *Plumage*, a deep slate blue, with a lacing of darker colour, or even black, on each feather is preferable; and, in cock, hackle, saddle, and sickle should be black or deep purple, with a rich gloss.

General Characteristics.

COCK.

Head.—General appearance, large and deep; *Beak*, rather long, but not thin; *Comb*, medium and single, perfectly straight and upright, and deeply serrated; *Wattles*, very long, fine, and thin in texture; *Face*, fine in quality, bare of feathers, and free from white; *Ear-lobes*, medium, smooth, flat, fitting close to the head, and free from wrinkles; *Neck*, long, carried well back, with flowing hackle; *Body*, general appearance light and active, broad at shoulders, tapering to the tail; *Back*, rather round, and slanting to tail; *Wings*, long, but carried tightly to the body, the long back feathers coming well over the points; *Breast*, rounded, and carried well forward; *Legs and Feet*, rather long, free from feathers, and toes thin; *Tail*, sickles arched, and carried well up, but not squirrel fashion; *Size*, large; *Carriage*, very upright and strutting.

HEN.

General characteristics resembling cock, with the usual sexual differences, except that the comb falls over to one side.

Disqualifications.

Face not red; Dorking-combed; five toes on either foot; legs other colour than blue; red, yellow, or white feathers anywhere.

Value of Defects in Judging Andalusians.

Bad shaped comb	10
Ear-lobe folded or wrinkled	5
Stain of red on lobe... ..	5
Want of hackle	8
Squirrel tail	15
Faulty in colour	20
Want of size... ..	10
Want of symmetry	15
Want of condition	12
	100

The number of points to be deducted for each defect must be left to the discretion of the Judge.

"This Standard seems to be generally considered to be open to improvement, and it is to be hoped that this will be found to have been effected when the committee, now engaged in drawing up one for the Poultry Club in England, issue it to the public. In 'Silver Dun's' excellent little book* there are given the opinions on this subject, obtained by the late Captain Egerton Jones himself the greatest of all authorities on the breed, from the principal breeders of the Blues in England, and I venture to quote one—that of Mr. F. W. Baker, of Cheadle, Cheshire—who says very concisely and pithily:—

'Judging the Andalusian from my own ideal, I should first of all look for Silver-Blue ground colour, as light a blue as possible, and deep blue or black, sharply defined lacing, and this under a deep rich black hackle and saddle in the cock, and laced hackle in the hen, with legs blue, not black.

'Next in order I should demand size and shape, long on the legs, with massive and prominent thighs, prominent breast, head carried well back, tail carried rather low and compactly, plenty of bulk and weight, and yet alert in carriage.'

'Lastly, I should place the head points of the breed: Comb, not too large, with few, rather than too many, spikes, straight up in front, free from twist or thumb marks, and not too low behind; face, sound red, a spot or two of white a blemish, but not a disqualification; lobes, rather long and narrow, thin and smooth, pure opaque white.

'As for disqualifications, I agree *in the main* with the Club, with the exception of 'white in face.' This I look upon as a serious, and not a fatal, defect. My reasons for this are, that colour being, in my estimation, the most important point, I should prefer that any weakness here must be treated with greater severity than faults anywhere else, and that until colour is more firmly established it will be necessary to treat a faulty face with greater leniency.'

DESCRIPTION.

The following more detailed description, Mr. Hamilton continues, "embodies my views on the matter:—

"STYLE AND SHAPE.—In the present anxiety to improve the colour, I think there is some danger that the style and shape may be neglected, yet those, at least, are equally important. Active and sprightly, tall and upstanding in appearance, the Andalusian should have more length of leg and thigh than a Minorca, with slightly less squareness of body. The breast *must* be carried well forward, and the head well back. The back should be broad, widest at the shoulders, and narrowing and slanting down to the tail. Flat sides are objectionable—the body should be nicely rounded. The cock's tail, according to the general opinion now—with which I quite agree—should be carried, not only not 'squirrel fashion,' but somewhat depressed, *i.e.*, set

* "The Blue Andalusian," by "Silver Dun." Published by the "Feathered World," London, England.

on at an obtuse angle with the back : while the hen's tail should be tightly compressed, more so than the cock's. The sickles should be well arched, but the top feathers should be lower than the top feathers of the true tail. The wings should be large, but carried well up : shoulders and tips well covered in the cocks by profuse hackle and saddle hackle feathers respectively. The shanks should be massive, and the thighs prominent. Size is an important, though much neglected feature, and the cocks should weigh at least 8 to 9 lbs., and the hens 5 to 6 lbs. when full grown.

"HEAD POINTS.—The head itself should be comparatively large ; beak strong, and dark horn colour, eyes very full and dark. The face must be red, and, according to the Standard, any white there involves disqualification. Most breeders, however, now object to this, and would make it a very serious defect only, for there are few cocks that do not go white in face as they get older. Personally, I agree with the compromise adopted by the Club in Victoria, where any white is a fatal defect in the case of cockerels, and a serious defect in the case of older birds.

"The cock's comb should be perfectly erect, only moderately large, and somewhat rough in texture, but neither so 'beefy' nor so rough as the Minorca's. It should be relatively broad at the base, and taper off rapidly to the points of the spikes. A comparatively thin comb is a characteristic of the breed often ignored even by our judges. The serrations should be even, wide, and deep, about five in number, the largest in the middle, the outline of the whole being a rather flat arch. The back part should not extend far, nor should it lie along or follow closely the curve of the neck. At the same time it must not rise upwards. A line along the bottom, from the front over the skull to the back, should be about horizontal. Any folding or twisting of the front of the comb, where it rises from the middle of the upper mandible, is very objectionable. This occurs frequently in cockerels, who sometimes lose it, as the comb in growing increases in weight behind, which straightens it up. More serious faults are 'thumb marks' and 'sprigs.' Birds with either of these defects should never be allowed in the breeding pen, as these faults are, I believe, hereditary. The comb of the hen should be similar to that of the cock ; but, instead of being altogether erect, should only rise from $\frac{1}{2}$ to 1 inch, and then fall over to one side or the other. On no account should it fall over flat, without any rise, or lie flat in folds on the head. The lobes should be rather long and narrow, somewhat wider at the top than the bottom, fitting tightly, and perfectly smooth and fine in texture, and pure white. The wattles should be long, and fine, and red.

"FEATHERING.—Andalusians should not be loose in feather (though this does not mean that they should be hard-feathered, like a Game Fowl), but the hackle and, in cocks, the saddle hackle should be most abundant. A very important point is that the body feathers should be large, so as to show plenty of the light ground colour inside the lacing. If they are small, the lacing of one feather comes so near that of the next that the beautiful contrast of the colouring is, to a great extent, hidden. All the feathers of the tail, including sickles and tail coverts, must be as broad as possible.

"COLOUR.—As has been mentioned before, the tendency nowadays is to consider the colour points the most important of all. In the cocks, the top colour—*i.e.*, that of the head, hackle, back, and saddle hackle—must be uniformly and entirely of the very darkest purple-black or black. The rusty or brownish-grey hackles, so often seen, constitute a fatal defect. The sickles, according to the Standard, should also be of this dark colour ; but many, myself among the number—and I am glad to see so great an authority as 'Silver Dun' is of the same opinion—would prefer to have them of the same (lighter) hue as the ground colour. In the hens the head should be dark purple or black, but the hackle feathers should get lighter and more open in the centre, so showing lacing more and more as they get down the neck and on to the shoulders. In every other part than those above mentioned, that is to say, on the breast and thighs, shoulders, wings, and tail of the cock, and every part except the top of the head of the hen, the ground colour must be of a clear, light, silvery blue (not grey), without any 'sootiness,' 'ticking,' or 'mossiness,' and every feather of this colour must be 'laced,' or edged all round—and not merely tipped—with a very distinct, well-defined, and not too narrow margin of the darkest blue or black. It is very seldom that birds are seen thus laced all over on the back (of the hens), wings, and tail, as well as on the breast ; more rarely still is the ground colour clear and



Blue Andalusian Cock.

The property of Mr. H. Montgomerie Hamilton, Petersham, N.S.W.

Winner of 1st prize every time exhibited, including Royal Agricultural Society, Bathurst, and F.P.C. & D. Shows, N.S.W., 1897.

uniform throughout. The cocks are often 'sooty' about the throat; and the hens patchy and 'mossy' on the back, but too much stress cannot be laid on the importance of this silvery clearness of ground colour and distinctness of lacing, well shown off by feathers large and broad. These are the points to be aimed at, and, as Captain Egerton Jones (whose sudden death is an incalculable loss to all lovers of the Blues) remarks:—'By careful selection and skill in mating, these points can gradually be permanently secured, as surely as the steady perseverance of Sir John Sebright produced the ideal Bantam of his fancy.'

"Not so much importance has been attached to the colour of the shanks as it deserves. They and the toes ought to be of a uniform dark blue tint. This is often hard to get; more are rather grey than blue, unless the throat be 'sooty,' when they are generally black, but it ought to be insisted on.

"The best specimens that have been seen in these Colonies have undoubtedly been those that have been imported from Captain Egerton Jones and others in England; but Mr. Duncan and Mr. Edmondson (both, alas, now retired from the Fancy), Mr. Norman and Mr. Crawford, in Victoria, and myself (if I may say so), in N.S.W., have been the most successful breeders in Australia, while Messrs. Banks (now retired) and Mr. Beumelberg, of Christchurch, Mr. May, of Auckland, Mr. Shallcross, of Nelson, and Mr. Watson, of Timaru, have done well in New Zealand.

"The following table summarises the foregoing description, and I submit it as more up-to-date than that given with the Andalusian Club Standard. It is based on that of 'Silver Dun,' from which it differs principally in the cutting of some of the points he allots to colour, and giving them to size of feathers and quantity of hackle, and in putting shape and carriage together, and making them worth more than size and condition.

TABLE OF THE RELATIVE IMPORTANCE OF DEFECTS.

(A Perfect Bird to score 100.)

Deduct for faults in comb	10	} Head	25
" " " " face	...	...	12			
" " " " lobe	...	...	3			
" " " " cock's top colour	10	} Colour	40
" " " " ground colour	...	...	10			
" " " " hen's	...	...	20			
" " " " lacing (cock's and hen's)	...	...	20			
" " deficiency in size and breadth of feather	5	} 5	5
" " deficiency in quantity of hackle	...	...	5			
" " faults in shape, style, and carriage (including set of tail)	15	} 15	15
" " want of size and condition	...	...	10			
								100

"SERIOUS DEFECTS.—Cock's comb going over, hen's comb nearly erect, semi-serrations, side sprigs, thumb-marks or twist in front, paleness of face, specks of white in *cock's* face, red tinge on lobe, wrinkled lobes, want of hackle, any white in flights or in any part of tail.

"FATAL DEFECTS.—Comb not single; quite over in cocks, or quite erect in hens. Face quite white in adults, or having even only specks of white in *cockerels*; lobe red; any other body colour than blue; any other colour than black (or dark purple) in lacing or hackles and saddle of cock; legs any other colour than blue, or feathered; toes, more or less than four on each foot; squirrel or wry tail; any other deformity.

DISQUALIFICATIONS.—"Any trimming, dyeing, or other fraudulent practice.

BREEDING AND MANAGEMENT.

"Both when starting to breed Andalusians, and whenever it may be desired to add any to the yards, it is absolutely necessary not only to seek a reliable source from which to obtain what is wanted, but also to get full particulars as to the breeding of the stock that has produced the birds or eggs to be bought, and this whether the object be to secure good layers or to breed for Exhibition. No doubt this is more or less true in the case of all varieties; but the remarks that follow on mating will, I think, show how all-important it is with regard to Andalusians.

"If the start be made with eggs, there must always be some uncertainty as to the result. Success will depend on the quality of the parents, and the skill with which they have been mated; and the beginner should buy from a well-known breeder, who has proved that he has not only good stock birds, but also this skill in mating, by having himself bred others equally good, rather than from a man just because he has won at some Show, whose birds may not have been bred by himself, and may not have been properly mated. There is no greater mistake, fostered though it be by many breeders who advertise that they have purchased the winners at such and such Shows and have them in their breeding pens, than to suppose that the chance mating of winners will produce winners. If the first purchase be birds—which is the better, though more expensive course—the rules which follow should be borne in mind when selecting them.

"MATING.—The *first rule* in mating Andalusians is undoubtedly that none but Blues must be put in the breeding pens, and that these must have been bred from Blues only for as many generations back as can be traced. That this rule has not always been kept in the past is certain, and that we owe a good deal to a Minorca, and probably to a Langshan, cross; but in the future it should be rigidly adhered to, as it is only in this way that 'off-colour chickens' will become a rarity instead of a too common occurrence, as at present.

"As the *second rule*, and next in importance, I would place judicious in-breeding. By this I mean that there should always be the same strain of blood in all the birds in a breeding pen. The closest relationship—brother and sister, father and daughter, mother and son—may even be used occasionally with excellent results, but this should not be continued in the next generation; and, speaking generally, while keeping to the same blood such close connections should be avoided. If, in the second season after starting, the cock be mated with the pullets, and a cockerel with the hens, the next year there will be quite enough change of blood without going off the premises. The best way to introduce new blood, if it is desired to do so, is to get a hen of the strain selected and put her in one of the pens, and mark her chickens carefully, and, if they prove satisfactory, use them in their turn; a strange cock may destroy the value of a whole pen, whereas if the chickens from the new hen turn out badly there is little harm done—there are always the others that can be relied on. It is also possible sometimes to get a cockerel which has been bred from a bird sold, and which, therefore, is of the half-blood, and such a one may be mated without fear to the old stock hens if he suits them in other respects. This rule is founded on the well-known fact that the mixture of unrelated blood has a strong tendency to cause reversion to original types, and in Andalusians the effect of such a course is to produce a large proportion of 'off-coloured' chickens.

"The *third rule* is that the male bird must be selected with a view to the 'Fancy' points, and the female to the size and shape which it is desired their offspring shall possess, as these are the matters in which experience has proved that the sexes are respectively prepotent.

"The *fourth and last rule* is that the birds must be mated on the principle of compensation. Possibly, if an absolutely perfect cock and an absolutely perfect hen, both of the purest lineage, and related in some degree to each other, were mated together, some at least of their progeny would be equal to their parents, but absolute perfection has not yet been attained, and one bird fails in this point and another in that; good, indeed, are such as have only one fault. The breeder must, therefore, put together birds which will correct each other, or, in other words, he must mate one that is good in all but some point or points with others that are particularly good in that respect. These will almost certainly not be Show birds in either case, for

such are generally fairly good all round, with no pronounced fault, if no remarkable feature. What is wanted in the breeding pen are birds of strong individuality, exceptionally good in some particular point, though they may fail more or less in others.

"From this it will follow that if the hens are too light in colour the cockerel must be a dark one, and *vice versa*. I don't think it is of vital importance which sex is the lighter and which the darker, but personally I prefer a dark cockerel and light hens; of course, each must be carefully selected. The cockerel must, in accordance with the third rule, be extra good in the 'Fancy' points, such as comb, lobes, etc. He should be long on the leg and not flat-sided, but he need not be a big bird. As to colour, the top colour should be of the blackest purple, and the colour a good deal darker than in an Exhibition specimen, while the lacing should be extra broad and well defined, and should be found on the back, under the hackles, and on the wings and tail, as well as on the breast and thighs. The hens to mate with him should be rather light in ground colour, and perhaps not heavily laced enough for Exhibition purposes, but the former must be quite clear, and the lacing on every feather. They should be as large and well-shaped as possible, for the reasons in Rule 3; and, what is also of the greatest importance, they should be an even lot, as like each other as possible. From such a pen as just described, due regard having also been had to Rules 1 and 2, I would expect the best results. With regard to mating light males and dark females, the difficulty is to find a very light cockerel that has no rustiness in the hackle, for all birds with any suspicion of brown, or even grey, hackle feathers should be rigorously excluded from the breeding pen, as the invariable consequence of using them is to reproduce this fatal fault in the cockerels, and to deprive the ground colour of the pullets of that uniformity of clearness which, as has been stated, should be one of the main objects to be aimed at.

"Another fault that should be avoided is any trace of white in face, for I do not believe that this can be corrected or compensated by the other bird or birds having sound faces. At the same time this applies more particularly to young birds, and an old cock, otherwise good, might be used (especially to make up an extra pen), in spite of some specks of white in his face.

"It will be noticed that I have spoken all along of mating cockerels with hens; and I prefer to have the male just under twelve months, and the females about two years old, but excellent results are also to be obtained from an older cock and younger hens. I do not, however, believe in breeding from pullets under ten or twelve months old, though they may have commenced to lay when much younger.

"A cockerel may be given six or seven hens, or even more; but a cock should only have four or five, and with a very old bird it is a good plan to put the hens or pullets in with him only for an hour or two in the afternoon.

"REARING OF CHICKENS.—Having made up the breeding pens, the next consideration will be the setting of eggs and rearing of chickens. In N.S.W. the best months for the young ones to make their appearance are July and August, while June and September are also fairly good. The hens moult late, and, probably, few of their eggs will be available before June; but those laid just after the moult produce the finest chickens, and the pullets hatched from them should be laying from the following Christmas onwards, when eggs are scarce.

"As the eggs are large, and the weather, probably, cold at this time, not more than 9 or 11 should be put under a hen if that method of incubation be adopted. When hatched, the chickens require only the ordinary treatment; but, in my opinion, from the time they are three months old a great deal of the soft food may, with advantage, be replaced by grain—oats in particular. A considerable percentage of the chickens will feather very slowly. These often turn out the finest, both in size and colour, and, therefore, are not to be despised, for all their uncouth appearance. A few words will be said about warts and lice later on. The latter are, I believe, the chief cause of ill-health and failure, and should never be allowed to appear, still less to stay in the coops, or on the birds.

Thinning out will have to be more rigorously carried out by the Fancier than is necessary with most other breeds. In the first place, all but the Blues must be disposed of in some way or other as soon as they

are hatched. Later on, all that are too light or too dark must follow them; and, finally, when about six months old, all cockerels with faulty combs or tails, and all birds that show any deformity or white in face must be killed off. There can be no doubt that by clearing out the bad ones the good ones will get on better, and, though it may go against the grain, it is wiser to be rather over than under critical at all times, and have no mercy. Another thing that tends to the production of fine large birds is to separate the sexes in good time, as soon, in fact, as the combs of the cockerels commence to spring.

"THE MANAGEMENT OF ADULTS differs little, if at all, from that of those of other breeds. They do better when they have plenty of space, but do excellently well in comparatively close confinement, only in the latter case they naturally require to be well supplied with green stuff and grit, and, as has been pointed out, the breeding pens should be covered with wire netting where they are mated with a purpose, as they are great flyers. It is the usual practice to give pollard in the morning, and grain at night; but I find it better to give the grain at both meals as a rule, and pollard only two or three times a week. I prefer wheat, oats, and barley, and do not like maize, as it is too fattening, but a few handfuls thrown in occasionally during the winter make a nice change.

"Andalusians moult late, and my experience about Sydney has been that they are more liable to sickness in February and March, when moulting commences, than at any other time. Though remarkably healthy and hardy on the whole, some seem to have a tendency to 'go light' at this season, and the only way to cure this is to coop the ailing bird by itself in a cosy corner, and give cod-liver oil in some form or other. Scott's Emulsion is excellent, but expensive; but nothing will avail unless the disease be noticed, and remedies applied in its earliest stages

"Andalusians have been accused of feather eating, but I have not found that they do this more than other breeds. When it occurs, the best thing to do is to dig up the soil of the pen, and give them some extra scratching to do, and to provide them with plenty of green stuff, and some meat. It is well, also, to anoint the cock, who will stand like a lamb to be shorn of his plumage, with some strong-smelling preparation, a mixture of carbolic, or creosote and vaseline, for instance, which will disgust the hens, and also kill any parasites there may be at the base of the feathers. Another nasty practice I have found the hens more frequently indulge in is picking at the cock's comb. I have seen many a good comb spoilt in this way, for a sore is made, which leaves a hollow, and the comb falls over. To stop the hens, the remedies mentioned for feather eating are applicable. The cock's comb is sometimes similarly affected by a disease which seems to eat into it, making pits and furrows, and also causing it to bend at the weak place, and fall over. Carbolic acid is the best thing to apply in such cases.

Like all other breeds in N.S.W., Andalusians suffer from roup and 'warts.' Of the former, there is no need to speak here, further than to emphasise the absolute necessity of attending to it on its very first appearance, for if it is allowed to get a thorough hold of a bird a cure will be very difficult, and only worth trying in the case of one of great value. As a preventive, avoid draughty roosting places, provide shelter from rain, and put enough Condry's Fluid in the drinking vessels to tinge the water pink. As to 'warts,' so-called, I do not believe in the theory that they are solely due to mosquitoes, and I hope it will not be long before the disease is scientifically investigated by the Department of Agriculture in N.S.W., in accordance with the promise given to the Poultry Club. 'Warts' may be easily cured (and, I think, prevented) by the addition of a little ammonia, or ammoniated quinine, to the drinking water, and by anointing the head (face and comb) with either Spratt's or Hoddinott's cure. All newly-imported birds, and all chickens seem to be attacked by 'warts,' but once recovered they do not have them again.

"LICE do more harm to birds than anything else, and should never be allowed to put in an appearance. With regard to them it is, indeed, true that prevention is better—and it is far easier—than cure, and the houses, perches, nests, etc., should be frequently whitewashed, or washed out with some strong insecticide, such as Little's 'Phenyle,' or Sheep Dip, much diluted. If lice get on the birds or chickens, they will never prosper, and if their presence is suspected, each should be individually inspected, and thoroughly dusted

with 'Keating's' powder. Is is a good plan when the chickens are just hatched to rub some creosote and vaseline mixture on their heads, and to repeat this every week.

"PREPARATION FOR EXHIBITION.—No very special directions are needed with regard to birds intended for Exhibition. The most important matter to which attention should be given is the necessity of keeping them out of the sun, which in this latitude soon scorches the plumage, and turns it dull, and dry, and rusty. By no means should they be shut up in the dark, as that would make the face pale; but the pens should be well sheltered by creepers, or trees, so arranged, if possible, that the sun may shine full on to every part of it in turn for a short time every day, while at that time the rest is protected from its rays.

"Backward birds may be pushed along by closer confinement in warm quarters, and the comb may be very much assisted by constant manipulation with the fingers.

"During the moulting season such birds as are likely to be exhibited may be given some saccharated carbonate of iron mixed with the pollard, about a teaspoonful to every six or eight birds, as this seems to supply what is wanted to put colouring matter into the feathers. For a few weeks, also, before the Show, a little whole linseed boiled, and mixed with the pollard, and a little hemp seed, or sunflower seed with the grain, will help to put a gloss on the feathers; but it must not be forgotten that this sheen is a sign of good health, and if the birds are not healthy, nothing will make their plumage glossy.

"Andalusians do not, as a rule, require much washing. If necessary, it must be carefully done, and the birds thoroughly dried. A little camphorated oil may be put on the face, comb, wattles, etc., but it must be rubbed off again, or dust will adhere to it.

"As a last word of advice, I would say, 'do all that you can by careful mating to improve the breed, exhibit honestly, and take a beating like a man.'"

For the following interesting and instructive notes on this class of Fowl we are indebted to that celebrated breeder and exhibitor of the variety, Mr. F. G. Edmondson, "Beulah," Hawthorn, Victoria, who writes:—

"The origin of this very handsome and useful Fowl is enveloped in a certain amount of mystery. Some authorities say that it was first introduced into England some forty or fifty years ago from the Spanish province of Andalusia, from which it derives its name, and there appears to be no doubt that birds of similar colour and shape were brought over from there. Others hold that it is a chance production, the result of crossing Black Spanish with white or light coloured Fowls, such colours often producing blue or slate coloured birds. Whatever the origin really was matters little to breeders of the present time, as the Andalusian, having for so many years been bred and exhibited as a quite distinct breed, may now lay claim to be as pure as almost any breed that is in the hands of Fanciers or others. That other breeds have been crossed with the Andalusian, with the object of improving it from a Fancier's point of view, cannot be denied, and both Spanish and Minorca blood have been introduced, for the purpose of increasing the size and whiteness of the lobe, the size and shape of the comb, and to secure the lacing sharper, and more pronounced.

"These crosses were not an unmixed advantage, as, though the objects of improvement were gained—particularly to the head points—faults were at the same time introduced, such as white faces from the Spanish, and the heavier and less sprightly build of the Minorca. These faults are gradually being eradicated, the white specks in the face are becoming less and less apparent, till it is not an unusual occurrence to find good classes of Andalusian almost entirely without this defect, whilst the upright and attractive carriage of the true Andalusian is becoming more pronounced.

"The Andalusian, being more especially a 'Colour' breed, attention was not given for many years to breeding out the effect of Minorca blood on the shape, and birds are still exhibited that are practically 'Blue Minorcas.' However, some breeders have persistently adhered to the true shape, which is very similar to that of the Black Spanish, though a little more 'Gamey' than even that breed. Amongst such breeders were the late and much lamented Captain T. Egerton Jones, Mr. Edwin Merrill, Mr. D. Butterfield, Mr. Francis Baker, and others. My own fancy for the breed was formed in England, where a neighbour kept a

fine stud of them, and I first interested myself in the breed in this Colony some ten or twelve years ago, when I obtained the best birds available here at that time. None of these (except, perhaps, a cockerel purchased from the late Mr. De Moor) would be considered an acquisition to any Andalusian breeders' pens of to-day, and, though subsequent importations from England made an improvement for some years, it was not until I purchased Captain Egerton Jones' first Crystal Palace Cockerel, 1891, that I felt I had obtained the blood of a strain that were truly typical Andalusians, according to my own views. Further purchases from the same gentleman of several of his Crystal Palace and Dairy Show Cup, Medal, and prize winners, confirmed my idea that this was the type really sought after by English breeders. From a number of Standards collected by the late Captain Egerton Jones from different Andalusian breeders, copies of which he very kindly sent to me, and which were published in that excellent monograph 'The Blue Andalusian,' by 'Silver Dun.' I select his own, which is as follows:—Cock: *Size and Shape*.—As large as possible, consistent with symmetry, with long shanks and thighs; breast, full and round; back, wide, with rounded shoulders tapering to tail, which should be rather depressed, and not fan-shaped. *Colour*.—Hackles, dense lustrous black, resting well down on shoulders, so that, when standing erect, the whole back appears one unbroken surface of black colour; breast, clear, light silver blue, each feather edged with sharp (not too narrow) black lacings, reaching to thighs and fluff; tail, same colour as breast, with sickles darker, or even black; top sickle feathers lower than top tail feathers; wings, same shade as breast, with each feather laced with black; legs, dark slate colour. *Head, Comb, Face, Lobes, etc.*—Head, moderate size; comb, slightly following curve of neck, straight, firm, broad at base, with from four to six serrations deeply cut, no side sprigs or thumb marks; lobes, fair size, pure white, smooth, rather round than almond shape; eyes, reddish brown (not orange colour); face, bright red, free from white; wattles, long, without folds.

"Hen.—*Size and Shape*.—Large as possible, with rounded breast; tail, carried rather low, and slightly compressed. *Colour and Lacings*.—Same as breast of cock, viz., light silver blue, with perfectly black lacings (not too fine), all over to end of tail, if possible, with exception of glossy black hackle at top, ending in laced feathers on shoulders. *Head Points*.—Head, fair size, with rather large comb, rising straight from back and falling over one side, with deeply-cut serrations. *Face, Lobes, and Legs*.—Same as cock.

"Defects.—White in face, red lobes, high tail, white feathers, grey hackle in cock, or comb over, or erect comb in hen; sooty ground colour in either.

"Disqualifications.—Red feathers, rusty hackle or saddle, more than four toes to each foot, feathers on legs, etc.

"Mr. Edwin Merrill's ideas are in accord with the above Standard with regard to colour and head points, and he describes shape thus: 'Long in leg and thigh, large breast, full and round, and long graceful neck; tail carried low, and not fan-shaped.' And Mr. Francis Baker describes shape in somewhat similar terms, viz.: 'Long on the leg, with massive and prominent thighs, prominent breast, head carried well back, tail carried rather low and compact, plenty of bulk and weight, and yet alert in carriage,' and he also agrees with Captain Egerton Jones' views on colour and markings. The above descriptions give such an excellent idea of what a perfect Andalusian should be that it is quite unnecessary to make any addition thereto, so I will turn to other general points appertaining to the breed. There is one great drawback to the popularity of the Andalusian, which makes breeders, who do not understand it, fight shy of the breed, and that is they do not breed 'true to colour,' or, rather, a percentage of the chickens will be either entirely black, or white speckled with blue. This drawback is, however, not so alarming as it seems at first sight; and, after a careful study of the breed, I am convinced that a discerning and scientific breeder can mate a pen of Andalusians that will produce as good a percentage of Show specimens, for the number of chickens hatched, as is obtainable in any other 'colour breed,' and with the advantage that a certain number of his 'culls' can be disposed of as soon as they leave the shell.

"As layers, Andalusians are equalled by few, and surpassed by none; they do not sit, and their eggs are both large and numerous, and with pure white shells. As table birds they have not the size and weight of



Blue Andalusian Hen.

The property of Mr. H. Montgomerie Hamilton, Petersham, N.S.W.

Winner of 1st prize every time exhibited, including Royal Agricultural Society, Bathurst, P.P.C. & D. Shows, N.S.W.; and Essendon, Williamstown, and Melbourne Shows, Victoria.

some breeds, but in my opinion they are none the less profitable for that purpose, as they develop very quickly, and are fit for the table some weeks earlier than the large breeds, thus saving food, space, and attention. It may be of interest in this respect to mention that when the Victorian Government sent a trial shipment of Poultry to the London market, several Fanciers were asked to give some birds for the purpose. I selected about half-a-dozen Andalusian cockerels, and they and some Plymouth Rocks sent by another Fancier realised the highest prices for fowls in the shipment. I do not attempt to claim that they are the best Table Fowls, but the foregoing proves that they are not to be altogether despised, even for that purpose. An adult Andalusian cock should weigh 7 to 8 lbs., and the hens 5 to 6 lbs.

"A well-matched pair of Andalusians on a grass run cannot fail to make an impression on anyone with a taste for the beautiful, their pretty blue plumage contrasting with the large bright red combs and white ear-lobes, and their sprightly carriage is both pleasing and attractive. They are excellent foragers when given full liberty, and at the same time give a very good return in eggs when confined in a small run, but in the latter case care must be taken not to over-feed them. Having dealt with the general characteristics of the breed, I will now mention how the breeding stock should be selected and mated to produce the best results.

"Before going into detail, I would impress upon all breeders who wish to build up a valuable strain the importance of knowing as far back as possible the progenitors of the stock birds, and any points or peculiarities that the different strains are remarkable for, also to take note of the sire and dam of every chicken. In a pen of five or six hens it is easy to do this by watching a hen come off the nest after laying, then taking her egg and marking it with her name or number, and putting it aside as a sample; then set each hen's eggs separately, and the chicks may be marked in various ways as soon as they are hatched. Too many breeders in Australia are careless in this respect, and will not take the trouble, the result being that when they do breed a real good bird they cannot tell which are its parents, or how to mate the stock birds again to produce equally good specimens. Care must be taken in introducing new blood of any entirely distinct strain; and a Fancier purchasing, say, a cockerel for this purpose, should get one of a *strain* of undoubted quality, and must not be disappointed if the cross does not produce results quite up to his expectations the first season, and there is only a small percentage of good-coloured chickens. He will reap the benefit of the new blood in the second and following seasons, when he mates the progeny of his new purchase back to his original strain. Of course, if a strain should be deficient in any particular point or points, the cross introduced should be selected to correct these faults. It is impossible to describe how every Andalusian should be mated, and Fanciers must use their own discretion in mating the material they have at hand, but the following suggestions may be of some value. In mating Andalusians *always breed from blue birds only*, and select a slight contrast of ground colour, rather than mate very similarly-coloured birds together. An Exhibition cockerel as described in the Standard, with a light blue breast, with black lacing, and black hackle, may be mated to hens of a medium shade (not sooty) of ground colour, well laced throughout. A similar cockerel, but with a darker breast and broad lacing, should be mated to hens of very light ground colour, with rather weak and narrow, though distinct, black lacing, selecting those hens which have in addition black feathers on and about the head. A very dark-breasted cockerel, but whose breast still shows a well-defined broad black lacing, should be mated to hens very light in colour, which may have blue heads and necks and well-defined blue lacing. The chickens from this mating will rarely be up to exhibition colour the first season, but the second season will generally moult out with very good colour and markings. A light-coloured cockerel with a blue shade of top colour should be mated to hens of a medium ground colour, with broad black lacing and black necks. A very dark hen mated to such a cockerel will often produce very fair cockerels, but few pullets of any value, and I much prefer using a cockerel rather darker in the breast than the Standard colour, and with very black top colour and lacing, mating him with light coloured, well-laced hens. In selecting cockerels for breeding, discard those with brownish or rusty hackles and those that are very pale in top colour, and with faint blue lacing, and give preference to cockerels with very large breast feathers, as such have a more handsome appearance, and will produce much better chicks than those with small feathers. A fault with many cockerels at the present time is scanty hackles and furnishings

generally, and attention should be given to rectify this. Of course, it must be remembered that colour, though very important, is not the only point to study in selecting the breeding stock; and shape, carriage, size, and head points must also be taken into consideration. In 'culling' or 'weeding' out the chickens, the black and white ones should be banished from a Fancier's yard as soon as they are hatched, as they can be of no use to him, though they make excellent laying stock for the Farmer or those who keep a few hens to supply the household eggs. All blue chickens, except deformed birds, may be allowed to grow till they are four or five months old, or until they go through their first moult from chicken feather to adult plumage. At this time the cockerels will have combs of a fair size, and the breeder can weed out all with bad combs, decided willow-coloured legs, very pale hackle, and, of course, all that show white specks in the face, should there be any at this early age. In both sexes, light-coloured birds with black head and neck feathers should be retained, even though they do not show much lacing on the breast and body. Provided other faults do not utterly condemn them, a pullet of this description will often develop most perfect and distinct lacing at a later stage. Many chicks will feather very slowly, and will run for weeks with half-a-dozen flight feathers in each wing, and the rest of the body thinly covered with down. These are generally very good-coloured birds when they attain adult plumage, and are nearly always exceedingly well laced, though often deficient in comb, lobe, and wattle. As a rule, they look very ungainly while growing, but when fully developed attain a great size.

"I would recommend a beginner to note such slow-feathering birds; and in mating up his breeding pens for the following season, if he selects one of these cockerels, to mate him to hens that have feathered quickly as chickens, and with good large combs and lobes, and to mate the pullets to a rather full-feathered cock with well-developed head points. In conclusion, I tender a suggestion on the Judging of the *young* classes of Andalusians, to show where, in my opinion, many of our Judges are in error, and where the breeder-Judge has a decided advantage over the book-learned Judge. The Standards describe the *adults*, both cock and hen, and yet many Judges apply the exact Standard description for shape and symmetry to the young classes also, whereas cockerels and pullets eight to ten months old, that are of the adult shape then, will become too heavily built when they are adults; whilst the cockerels and pullets that are more stily and slimly built, and show a good length of tightly-feathered thigh clear of the body feathers, and with long necks, are really the birds which will eventually conform to the adult Standard, and my opinion is that to such the prizes in the young classes should be awarded, other points, of course, being equal."

The following additional notes are kindly supplied by Mr. Jas. B. Crawford, "Broomward," Alplington, Victoria, who writes:—

"This variety has always been a favourite, even amongst non-Fanciers, and deservedly so. I think there is something in the name which attracts beginners. It is very pleasant to pronounce, although some ludicrous mistakes are made in naming the breed. I have been asked, quite seriously, by a very worthy elderly lady, if I kept Antediluvians! For a Poultry breeder, who only studies profit, as a laying Fowl the hens cannot be surpassed. On an ordinary Farm the numerous off-coloured chickens produced are no detriment to the breed's useful qualities. Large wattles and combs are also not cultivated, so on this account they are all the more suitable for knocking about the Farm-yard. Formerly, Andalusians were shown here as full in comb, and as low-set as the Leghorn, and it is very difficult to convince many Poultry buyers to the contrary. They must have birds with large combs, and heavy-looking bodies; in fact, Blue Minorcas, to be the correct thing, in their opinion. I have met Farmers who could not succeed with either Leghorns or Minorcas, as, owing to the two mentioned breeds' vision being more or less obstructed by the enormous combs, they are very liable to be attacked by hawks, etc., and they have discovered that the up-to-date Andalusian is just the egg-producing Fowl for them.

"As our leading breeder and importer of Andalusians has just lately disposed of his large stock, which is now distributed all over Australia, there is no doubt that there will be a great increase of good specimens to be seen at all future Shows throughout this Continent."

We are indebted to the kindness of Mr. W. Samson, the Hon. Sec. of the *Victoria Spanish, Andalusian, Minorca and Leghorn Club*, for the Club's Standard for ANDALUSIANS. *This is as follows:—*

GENERAL CHARACTERISTICS AND COLOUR.

THE COCK.

It must be clearly understood that the descriptions hereafter given of the cock and the hen are what they *ought* to be, and not what is so often seen in the Show pen.

Head.—The general appearance large and deep. *Beak.*—Rather long, stoutly made, and of a dark horn colour. *The Comb.*—Brilliant red in colour, of moderate size, quite straight and upright, evenly and deeply serrated. The absolute number of spikes is immaterial so long as they are even, though some Fanciers say not more than six. *The Comb* to be well and firmly set on the head, the broader at the base the better, of fine texture, free from thumb marks, side sprigs, or twists. *Wattles.*—Bright red, rather long and thin, well rounded, of fine texture, and without folds. *Face.*—Here we come to the home of white spots or specks. These are, undoubtedly, largely due to the desire that has been manifested of late years to get as large a lobe as possible, and, by obtaining these, this objectionable fault has been developed. This points somewhat strongly to the parent blood of the Black Spanish. It is a fault that requires the most stringent repression. Of late it has increased to an alarming extent. It is not only a terrible disfigurement, but it is hereditary, and, unless it is quickly stamped out, the face will soon resemble the face of the Black Spanish. It is preferable to see the lobes slightly tinged with red so long as the face is sound in colour, and it will generally be found that where the former occurs the latter will follow. It will be gathered from these remarks that the face *should, and ought to be, bright red, free from spots or feathers.* In the Andalusian Club Standard the first of the disqualifications named is "*Face not red.*" If Judges were more particular in disqualifying birds for this defect, the evil would soon be stamped out. In using the word "disqualifying," is meant in not awarding a prize to a specimen so disfigured, whereas now it is no uncommon occurrence to see birds gaining premier honours with a face well spotted. *Lobes.*—White, of moderate size, fitting close to the head, flat and smooth, resembling a piece of white kid, pendent, well developed, but fitting close to face, that any white under the lobe may be concealed, without wrinkles or folds, and standing out clearly and distinctly from the face, free from red stains. *Eyes.*—Large, full; colour, bright orange or red, with plenty of fire in them, very sparkling. The colour of eye is important. *Neck.*—Long, carried well back, and furnished with a full and flowing hackle. *Hackles.*—These should be long and flowing, of a sound black colour, though a very deep purple is not objectionable; free from rusty, gold, brown, or red feathers. The lighter the colour of the bird the greater the tendency to striped or red feathers. When these *do occur*, it clearly shows that Game blood has at some time been infused. It is a great eyesore, and strenuous efforts should be made to stamp it out. *Body.*—The general appearance light, broad at shoulders, and narrowing towards the tail. *Back.*—Slightly round, slanting to the tail. The colour is deep purple, or black, very little being seen, on account of the hackle falling well over, concealing any part of colour on shoulder. The saddle feathers of the same dark tint, a richness of colour pervading the whole. *Wings.*—Long and large, but carried well up, that is, close to the body, the points being hidden by the saddle feathers. The colour, slate-blue. *Breast.*—Nicely rounded, and carried well forward; the colour, slate-blue, with the edge of each feather laced or margined with a much deeper tint, or even black. It is absolutely necessary that this marginal line be well defined. *Thighs and Shanks.*—Long. *Legs.*—Of good length, without the suspicion of feathers; colour, a dark leaden-blue. *Toes.*—Four, of the same colour as the legs, long and thin. *Tail.*—Full, the sickles nicely arched, the whole tail carried well up. By this is not meant a squirrel tail, as this is a blemish. The colour of each feather a deep slate-blue, free from markings. The *size* is an all-important point, and one that is often ignored. The larger the *size* the better. *Carriage.*—Upright and sprightly.

A Standard by which the Breeder can judge the value of defects in the Andalusian Cock.

A bird perfect in shape, style, and colour to count in points 100.

Too large or too small comb	...	...	...	...	...	...	...	...	6
Comb badly shaped, thumb marked, or side sprig	...	...	...	...	...	...	...	...	6
Ear-lobe folded or wrinkled	...	...	...	...	...	...	...	...	6
Red stains on lobe	...	...	...	...	...	...	...	...	6
White spots or specks in face	...	...	...	...	...	...	...	...	15
Want of hackle	...	...	...	...	...	...	...	...	6
Red, brown, or gold feathers in the hackle	...	...	...	...	...	...	...	...	10
Want of, or uneven, markings in breast	...	...	...	...	...	...	...	...	10
" " Condition	...	...	...	...	...	...	...	...	10
" " Symmetry	...	...	...	...	...	...	...	...	10
" " Size	...	...	...	...	...	...	...	...	15

100

DISQUALIFICATIONS.

Ear-lobes quite red ; yellow, red, or white feathers anywhere but the hackle ; legs any other colour than blue.

THE HEN.

In speaking of the colour of the hen a certain latitude must be allowed, because the shades of slate-blue vary considerably, and it is almost impossible to give a definite description of the hue.

Head.—General appearance large and deep, slightly flat on the top. *Beak.*—Rather long, but stoutly made, of a dark horn colour. *Comb.*—Bright red, of fine texture, evenly serrated, rising straight up for a short distance, then bending gracefully over to one side. It is a mistake for this beautiful appendage to come flat from the skull, and fall over one side of the face, so as to obscure the sight of one eye. The larger the serrations the better. No hard and fast rule can be laid down as to the precise number of spikes, but five or six give the best appearance. A hen with a comb that falls half to the right and then folds over, and the other half to the left (though not a disqualification), should not be used for breeding from, as a large number of the pullets from such a hen will develop the same fault, and the cockerels' combs will be bulgy and thumb-marked. *Wattles.*—Bright red, of fine texture, well rounded, free from tucks or folds. *Face.*—Bright red, free from any white spots or specks. *Lobes.*—White, tolerably large, but in proportion to the size of head ; smooth, free from wrinkles or red stains, fitting closer to the face than in the case of the cock. *Neck.*—Well arched, the colour of the feathers being slate-blue, laced with broad bands from shoulder, until lost in small black feathers round the upper part of neck and head. *Body.*—The whole being light and active, broad at shoulders, and tapering towards the tail ; colour, slate-blue, well laced. *Back.*—A little round, and sloping towards the tail. *Wings.*—Long, but carried tightly to the body, the slate-blue being here seen to advantage, the lacing showing very prominently, and as even as possible. The secondaries, or flights, may or may not be laced. *Breast.*—Rounded, and carried well forward. The fuller the breast the better. It is very important that the lacing should be very clear and distinct, each feather having a deeper margin of the darker colour. These markings should begin close up under the throat, and continue down to the shoulders and under-parts, the lacing being broader than in any other part of the body. *The Thighs and Shanks, Legs and Toes.*—The same as in the cock. *Tail.*—Carried well up, and the colour slate-blue. The *General Appearance* light and active, more of the Game type than the Dorking, the great desideratum being uniformity of colour, relieved by the darker tints of the marginal lacing.

A Standard by which the Breeder can judge the value of defects in the Andalusian Hen.

A bird perfect in shape, style, and colour to count in points 100.

Too small a comb	6
Side sprigs on comb	6
Double-folded comb	6
Ear-lobe wrinkled or puckered	6
Red stain on ear-lobe	6
Irregular markings on breast	15
White spots or specks in face	15
Want of Condition	10
" " Symmetry	15
" " Size	15
	100

DISQUALIFICATIONS.

Comb erect, ear-lobes quite red ; yellow, red, or white feathers anywhere ; legs, any other colour than blue.



CHAPTER XXXVI.

MINORCAS.

It is scarcely necessary to attempt to deal with the origin of the Minorca Fowl, as it is a recognised fact that the modern specimen is composed of the blood of more than one distinct breed.

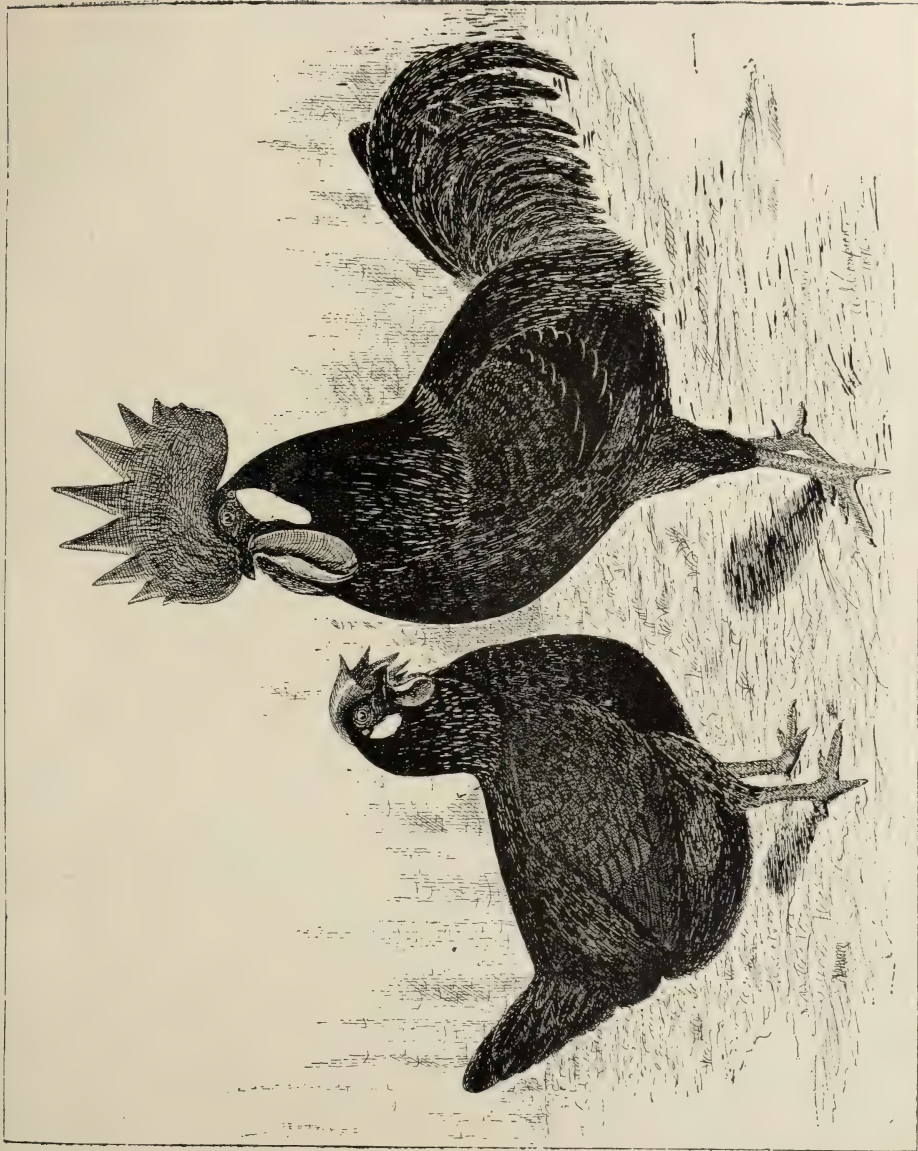
There is little doubt but that the present day Fowl is a much finer, larger, and better bird than its ancestors. The laying capabilities of the Minorca are of the highest, and, if mere weight of eggs is to be considered a test, the Minorca still leads, and for table purposes the Minorca is superior to most of the Mediterranean varieties. One great advantage this breed possesses is its adaptability to all surrounding circumstances, and if kept in confined runs, properly fed and housed, will give excellent returns. The Black variety is an invaluable Fowl for city and suburban Fanciers to keep, owing to the colour being specially adapted to wear well. The breed is very active in disposition, but extremely docile, the hens being wonderfully tame and confiding. As an Autumn layer, when eggs are high in price and scarce, the Minorca hen will keep up her reputation, and if the pullets are hatched even late in the season will commence to lay when five months old. The breed matures very rapidly, and, on this account—where size is required—the pullets should be continually moved about from run to run, so that laying will be retarded as much as possible. For crossing with other varieties of poultry, or even common barn-yard stock, the Minorca cock is a great acquisition, possessing the powers of prepotency to a marked degree.

In breeding Minorcas for exhibition, it will be well to make a start in a proper manner by purchasing reliable stock at the beginning, thus saving a great amount of expense and disappointment which must necessarily follow if this is overlooked, as it must be borne in mind that a great deal of care and judgment are required in the mating of the *very best* adult stock if good results are expected.

In breeding Minorcas, as in other varieties of Poultry, it must be remembered that certain characteristic and "Fancy" points are influenced to a great extent by the cock, such as comb, lobes, colour, and carriage, the future size and shape of body depending to a greater extent upon the hen, but, at the same time, one defect or more on one side of the stock birds must be counterbalanced by the other; though again, where this can be at all avoided, the better the adult stock—if carefully bred—the better the progeny will turn out. The cock to head the breeding-pen should have good lobes, well developed; well serrated, and perfectly erect comb, and be fairly tall on the leg. The carriage of the cock's tail is most important. This should be carried well back, not high or squirrel, as this fault is almost certain to be perpetuated in the young stock bred from him. The hens should be fairly tall on the leg, large as possible in frame, good length and depth of body, with tails carried well back. Care must be taken in discarding birds of either sex for the breeding-pen which possess side sprigs on the comb, as this serious fault is strongly hereditary. Birds two years old on both sides make an ideal breeding-pen, but this course cannot always be followed, and good results may be obtained by using a cockerel with two-year-old hens, or a two-year-old cock with well matured-pullets.

In this variety, again, it is best to have separate breeding-pens to produce cockerels and pullets. To breed cockerels, birds as above described will produce them uniformly, but to breed pullets the cock may have a thin comb, and even if not perfectly erect, providing it is well serrated and he is good in other essential points, he may be mated with hens that have also thin combs, fine in texture with spikes not too broad, but plenty of them, and results will turn out satisfactorily. The cock or cockerel to head the pullet breeding-pen may be deeper and thicker in body than the one used for cockerel breeding.

The feeding of Minorca chickens is much the same as directed in Chap. VI., on the Feeding, Rearing, and Management of Chickens, avoiding too stimulating a diet with this variety, as it must be borne in mind that this breed develops rapidly, and, if the object to be attained is the building up of the frame of the fowl



Black Minorcas.

The property of Mrs. Harold Cadell, "Wotonga," Bonnyrigg, N. S. W.
COCK—Winner of Special for "Best Minorca in the Show" at the
Poultry Club of N. S. W. Show, 1897, and 13 other 1st Prizes.

HEN—Winner of 1st and Special as a Pullet same Show.

by keeping it growing as long as possible without maturing too quickly, bone and flesh forming foods with little stimulating properties will be quite the best. The chickens should be separated according to sex at about two months old, killing the wasters, or those not likely to make good specimens. This latter requires some skill and knowledge to determine at times. There are certain defects which, however, stamp the chicks as useless for breeding or show purposes, such as side sprigs on comb, feathered legs, five toes on either foot, duck-footed, legs any other colour than black or slate, crooked breast, round back, squirrel tail, etc., and, as chicks never outgrow any of these defects, they may safely and wisely be discarded. A chick must not be discarded at this early age if it has red lobes, as these latter often become perfect with more age, or if possessed of a large amount of white in plumage, as this is mostly replaced by sound black as they grow older; and, as a strange coincidence in breeding Black Minorcas, those chicks which exhibited the *most* white in plumage while young, invariably turn out the very best *black* coloured ones as adults. Feathers other than black or white at any stage of their lives stamp the bird as useless.

When the young stock are about six months old, and the frame fairly well developed, more stimulating food may be given, at first rather sparingly, afterwards increasing the quantity, though care should be taken in avoiding spices or condiments that contain too heating properties, the latter being very injurious if fed in large quantities. At the same time, food rich in nutritive and harmless qualities, such as sheep's lights or meat of any kind, will be found highly beneficial. The good and lasting effects of the latter mode of treatment will soon exhibit themselves in the appearance and growth of comb, lobes, and wattles; the whole general health of the birds will quickly be improved. This treatment may be more liberal for cockerels than pullets, as the latter should not be encouraged to mature too rapidly. One way to prevent the pullets from laying at too early an age is to change their quarters as frequently as possible, thus assisting them to mature fully before commencing to lay. If the latter can be retarded until the pullets are at least seven or eight months old, it is most advantageous both for the Show pen and for breeding purposes; and, as a well established fact, the slower a bird of this breed matures the longer it will keep good Show condition, and the better for the breeding-pen.

When Minorcas are intended for exhibition, and if kept in confined runs, their legs should be oiled or greased occasionally, as in small dry runs the natural oily secretions of the legs soon become exhausted, and the legs first become very pale in colour and then covered with a scaly substance, an eyesore and objectionable from any point of view, though, at the same time and under the most favourable conditions and surroundings, the legs have a natural tendency to become pale after the bird's first adult moult. The change in colour of the legs is not, however, so rapid and noticeable if the birds have unlimited range. The nature of the soil has also much to do with this peculiarity; the influence of a chalky or even sandy soil being more pronounced than a clayey one.

As with other birds intended to be exhibited, the Minorca requires training and being accustomed to the show pen. Thus, when intended for this purpose should be handled frequently and encouraged to feed from the hand, and should be gently stroked down the back with a light cane, not in a rough manner, but as gently as possible; a wild bird in the Show pen having but little chance of scoring a card.

Much can be done in the training of Minorca combs in the way they should grow. Very often the comb of the hen is so folded that there is an almost equal amount on each side of the head, or it may stand up too high or almost erect, or may flap to either side. When any of these latter faults are evident it will be necessary to train it a little. This can easily be done by first damping the comb with warm water, then the forefinger and thumb should be dipped in vaseline, and the comb gradually worked to the desired position. This requires a little perseverance, but in the end will be successful. The same treatment can also be applied to the comb of the cock, if it is thumb-marked or too far away from the back of the neck. Care must be taken that no vaseline is allowed to touch the lobes, as this will quickly discolour them. Before exhibiting, the comb, face, lobes, legs, and feet must be well washed with soap and warm water, taking care that no soap touches the feathers. If a little ordinary washing blue is added to the water used in washing the lobes, it will greatly improve their colour.

Although size in Minorcas is very essential, other chief points should always be considered in judging them. Many Judges select as the prize-winners birds of unwieldy frame and as coarse and heavy in appearance as Langshans, whereas the true and typical Minorca is a bird of extreme activity and smartness in general appearance.

White Minorcas are similar to the Black in all points excepting colour. They, however, are rarely as large as the Black variety, though equalling them in economic properties, and it certainly is a matter for regret that they receive but little encouragement from Show Societies. There is, of course, a greater difficulty in the keeping and exhibiting of any white variety of poultry than a black or coloured one, and this in a great measure accounts for their more or less unpopularity.

General description of the Minorca Cock.—The comb should be deeply and evenly serrated, six spikes being the ideal number, but one more or less matters little. The third spike should be rather longer than the rest, the points of the spikes in front and back being gradually shorter, forming a semicircle. All the spikes, with the exception of the largest one, should be about equal in length to the solid part of the comb in depth. The comb should be long, and fit close down to the back of the neck without quite touching the feathers. It should not project too far in front, being about level with the point of the beak; it should be free from hollowness, thumb-marks or indentations, or a twist in the front. An ideal comb should be free from notches or twig serrations either at back or front. It should not have too much blade over the beak without serrations. There should be no twin serrations, *i.e.*, a serration with two points or spikes, the centre or division of which extends only a short distance. Side sprigs or spikes growing out of the side of the comb are fatal defects, as are also spikes growing in a circle with a hollow centre at the back of the comb. The texture of the comb should be fairly rough; the colour being invariably better, and birds with moderately rough combs keep sound in face longer than those with smooth faces and combs. A small symmetrical comb is, however, far preferable to an extra large one, although, unfortunately, size of comb seems to carry weight in some judges' opinion. If the enormous and ridiculous meaty monstrosities, called combs, were discountenanced, it would not be necessary to resort to dubbing stock cocks, a custom which at the present seems to be gaining ground. The lobes should be large and fit closely, having an inclination to be rather hollow in the centre rather than projecting. The lobes should be of a kid-like texture, pure white in colour and perfectly free from wrinkles or folds, and as near a perfect almond shape as possible; well developed lobes lend an additional attraction to the appearance of a bird, but this is too often accompanied with the objectionable white in face. The face should be smooth and free from wrinkles, bright red in colour, and as free as possible from hairy or spiky feathers; and, although bright red is the ideal colour for the face, a dark or gipsy cast is far preferable to one of a pale sickly hue, and may be depended upon to keep free from white longer. The eyes should be dark in colour, possessing a kindly and intelligent expression. The wattles should be very long and pendulous, well open, of equal length and nicely rounded at the extremities. They should be of the brightest red in colour and of much the same texture as the comb and face. The neck should be of fair length, abundantly furnished with hackle feathers and form a nice arch. The hackle feathers should be both long and full, reaching well down and spreading over a pair of square broad shoulders. The back should be wide and long, sloping gently downwards, and rather flat. The body should be long, deep, and square—a short body in this variety should be avoided, as birds with short bodies invariably carry their tails too high, and this fault is extremely difficult to breed out when once it is in a strain. The tail should be carried moderately full and at a fair height, the sickle feathers long and nicely curved, though not, however, as long or sweeping as the typical Hamburg's tail. The wings should be moderate in length, and carried closely to the body, that is, well clipped up under the saddle hackles; the flight feathers underneath should be sound in colour; the saddle hackles abundant and very glossy. The plumage should be exceptionally lustrous throughout, ranging from a beetle green to a purplish colour. The legs should be of good length, with fairly well developed and prominent thighs, not stilty as in the modern Game, but still long enough to give the bird a commanding appearance. The legs should be as dark in colour as possible to match the plumage.

General Description of the Minorca Hen.—The hen should resemble the cock in eyes, beak, legs, and feet. The comb should be of good size, well, evenly and deeply serrated, and well folded along the side of the head, though not folded so much as to obstruct the sight—a large, flabby comb that hangs lifeless should be discouraged, as the latter often causes partial blindness. The serrations in the comb should be five or six in number. The ear-lobes should be smooth and fine in texture, free from folds or wrinkles, but as large as possible; the shape should resemble an almond as much as possible. The neck should be long and nicely arched, the shoulders broad and square, the back long and broad. The body should be square and deep, with well-developed breast, somewhat resembling the Dorking hen in shape, though, having longer legs, this appearance is slightly detracted from. The carriage should be smart and active. The tail should be well carried back, the feathers of the tail well venetianed and carried closely. The plumage should be hard and close and very lustrous; fluffy or loose plumage is highly objectionable.

For the following notes on this variety we are indebted to Mr. J. B. Crawford, of "Broomward," Alphington, Victoria. Mr. Crawford writes:—

"The Minorcas exhibited have greatly improved of late years in the Australasian Colonies, owing to the importations of some of the best prize-winners from the Old Country. Formerly, good birds were few, and these were in the hands of a limited number of Fanciers. I think that Victoria may justly claim to be the headquarters for Australia of the Minorca, but lately the other Colonies have shown greater interest in them, and many first-rate specimens have been sent from Victoria to all the other Australasian colonies. There are plenty of so-called Minorcas to be found all over the country, but they have more claim to be styled 'Black Leghorns' as far as size and type go. There is a great deal of difference in type between the two breeds, the Minorca being taller and heavier, and longer in the back than the Leghorn. The tail should be carried rather lower than the last-named breed; they should also be full in the breast, not cut away like the Andalusian, and have rather meaty combs and long wattles. One of the chief signs of breeding is the dark eye, also dark legs if they can be obtained. The last point is rare indeed in most prize-winners, many birds of otherwise great merit failing in this point. However dark their legs may have been when exhibited in the young classes, it is seldom, if ever, that an old bird retains the colour of leg. White in face used to prevail in the Minorca, but now there are some good strains in which that defect rarely appears. I have noticed in some illustrations of recent English winning cockerels that they are too scant in tail. A good, full tail, is a great acquisition to this handsome and useful variety of poultry."

The following notes are kindly supplied by Mr. Harold Cadell, "Wotonga," Beecroft, N.S.W. Mr. Cadell states:—

"My experience of Minorcas is not as lengthy as some, but there are few more ardent admirers of the 'Black Beauties.' Some four years ago I first had to do with them, and from what I have since learnt to know as a real Minorca, those birds were better than what I was then assured were the right thing. Those I discarded in the first instance were upstanding Fowls of fair size, and the hens could walk along with head up—the proper carriage of the Minorca Fowl. Well, I was assured that such were no good, and so disposed of the whole of my stock, and obtained some of the strain that was then winning at all Sydney shows—birds on low legs, heavy, flabby combs that were in many cases almost innocent of serrations, as well as a positive cruelty and disfigurement to the hen. These I kept and bred until I saw some *real* Minorcas exhibited by Mr. Norman, of Victoria, at the Newcastle Poultry, Pigeon, Canary and Dog Society's Show, and am now pleased to state that our yards are clear of any of the flabby-combed strain. Our hens' combs now show the clearly-cut, deeply-serrated comb carried in such a manner that the hen can walk upright, and not 'scoot' about with her head almost touching the ground, and her tail up like those whose heads are 'adorned' (?) with a huge piece of red meat. Perhaps older and more experienced Minorca breeders will consider me presumptuous; well, to them I say, 'Go, buy and read "Harrison's Minorca Fowl," also "The Minorca Fowl," by F. Biggs. Look up the ideal Minorca, as pictured therein, and I am sure those who like Minorcas will be with me. Those who prefer a black Leghorn type, well, let them breed

Black Leghorns, and leave Minorcas alone. Judges have been greatly to blame in awarding such objects prizes, but the majority seem to think that an immense comb was all that was required in a Minorca, totally ignoring make, shape, type, and colour.

"I think we can place the Minorca among the general purpose varieties, or at the least in a sub-class. True, they do not incubate, but as layers they have no equal if weight and number of eggs are taken into consideration. As table birds, my experience of them is favourable; flesh is a good colour, juicy, and fine quality, good breast meat, and as they mature so rapidly they are fit to roast at three months old, consequently a very profitable Fowl to keep where market birds are desired. Pullets commence to lay between four and five months, and thus are a source of profit very early, the cockerels having been realised on some weeks previously. Unlike the Leghorns, they are very easily kept within bounds, a 6-foot fence being ample. As foragers they are good, ranging well out if at liberty; small eaters in comparison to their size, and the hardiest Fowl I know. Chicks seem to grow independent at a couple of weeks old, and start to look for their own keep. If needed to be closely confined in a suburban yard their colour stands well; dirt does not show, and with any reasonable care can always be relied on to look decent and keep the supply of eggs up. To prove they will stand confinement well, I append table of results from Mr. Dean Boyd, of Gosford: 'The average laying of the three Minorca hens bought from 'Wotonga' in June, 1895, was kept up for months as follows: In July, 60 eggs; August 62; September, 64; October, 62. The size of the yard and run was 30 x 8 feet. Feed was principally maize and pollard; a little green bone and green cabbage once a week.

"Now, colour is a point often overlooked, and many will smile at the idea of colour in a black or white Fowl. The undoubtedly true Minorca colour is a sooty black with a purple sheen not beetle-green, as so generally supposed, and once the eye is tutored to this colour the green will not be further tolerated. In size, well, as large as possible without coarseness, but having always in view to retain the sprightly carriage of the breed: 7 lbs. in hens is a good weight. I have heard of such going 10 lbs., but have not had the luck to see them. Cocks, 8 to 9 lbs., if obtainable. One of the chief drawbacks to obtaining size is the early laying of the pullets, and the only way to prevent this is to move them from run to run, avoiding stimulating foods. Oats and barley I find best, though pullets may be fed more pollard than cockerels, too much soft food being apt to cause growth of combs, without a corresponding increase of frame. Lots of room and exercise are essential in growing the cockerels, for which a diet composed principally of grain will be found the best, and if all reared together they can be kept so until twelve months old if necessary. Never discard a cockerel for a fallen or twisted comb. I have seen such grow up into as perfect combs as could be wished. If allowed to remain too long with the hen, this will often cause a twisted comb.

"A sound red face is a *sine qua non*. Many good-faced birds, while young, often show white in face with age—cocks more so than hens. Why? I cannot offer an opinion, but I would avoid breeding from such birds if possible. Thumb-marks are often found to mar an otherwise good comb, and are to a great extent hereditary. With a black Fowl a dark eye and black legs are undoubtedly right. Taking the Minorca right through, we may place it as one of the most suitable breeds for Australia, equally at home in extreme climates, in the Fancier's yards, closely confined, or at free range on a Farm."

For the following additional notes on Minorcas we are indebted to the kindness of Mr. F. Norman, of Wilson Street, Prince's Hill, North Carlton, Melbourne, Victoria. To use Mr. Norman's own words:—

"My experience of Minorcas must date back fully thirty years, and during that time I have noted many changes in the Minorca family. In those days they were a short-legged Fowl, with immense long bodies, very full, but close in plumage, large, good combs in both sexes, rare rich red faces, but poor in lobe especially. In the cocks the lobes were very small and thin, and in the hens were so small as to be scarcely perceptible at a short distance. The lobe was a minor point in those days. Comb, face, and size were the order of the day, with big bodies. These birds often weighed from 8 to 10 lbs. each, and we look in vain for such birds nowadays. As layers, the hens were not to be surpassed if the size of the egg is taken into

consideration. I have kept nearly every variety of Fowl, but none have come up to the original Minorca as layers, or even as Table Fowls. The old strains were above the average, being remarkably plump, and of fine flavour. It must be taken for granted that all Minorcas were not such fine specimens as those I have quoted. The late Mr. Leworthy imported into England some Minorcas that were of the Leghorn type, short in back, and rather small in size, but, from all accounts, excellent layers. I never kept any of those strains, preferring the larger birds. In colour, most of the old strains were a dull black, but not all, as I had Minorcas of a splendid colour in 1868. One hen in particular was very lustrous, and possessed a better lobe than any I had seen at that time; and for size and Show qualities, would beat many of the best Modern Minorcas. I am one of the few that believe that, with the exception of style and lobe, the modern bird is not in it with those we had twenty-five years ago, and they did breed true, not being subjected to the breeders' art by top crossing. As to the relative position our old strains would occupy in the Show pen with the modern production, I might mention that my first prize cockerel at Melbourne (Victoria), and second at Newcastle (N.S.W.), in 1894, was one of my old strain, and had to compete against stock bred from my noted English Champion, in 1893. In the modern bird a great improvement has taken place in style, lustre, and lobe; in fact, many of the present-day specimens have scarcely a drop of pure Minorca blood in their bodies. To obtain the large pure lobe, the Spanish and Black Hamburg were, undoubtedly, used, bringing with it so many *white-faced birds*, and also *light-coloured legs*. To improve them in style, Brown-Red Game and Langshan were used. This cross also gave a greater lustre to the plumage, and would also improve the face, colour of eyes, and legs. The old strains had a most brilliant red face. It is only of quite recent years that so many '*pale faces*' have been seen. I do not object to those crosses if those that used them would breed back again to the true Minorca. Many of the so-called Modern Minorcas are simply the result of top crossing a half-bred Spanish hen with a large-combed, round-faced Minorca cock. This will breed some rare Minorcas to the eyes of those who do not understand the breed; but see what veritable mongrels they will throw. Those who have made these crosses quickly discard them. I speak from experience with these top crosses, having had to pay very dearly for them. Many of these birds are too upright in carriage, and cut away in chest, two certain signs of Game and Spanish blood; and they are also considerably more stilty in appearance, and as layers they are far inferior to the originals, many I have had being very indifferent layers. No doubt the continued selection for the fixing of '*Show Points of excellence*' has sacrificed the laying capabilities of the breed, there being few specimens which combine both. There are, however, exceptions to this, as I have had several of my noted prize-winners that were extra good layers. As Show birds, the modern type does not last as long as those of the past, so very few Minorcas ever being exhibited now, the second season. This, I think, is partly owing to so many so-called Minorca Judges going for head gear only, and awarding prizes to birds on the grounds of possessing monstrous combs. What is wanted in young birds is *to be neat in head points*. Birds that mature slowly and gradually their head qualities do not go 'all to pieces,' as so many do that develop quickly, the latter often arriving at maturity at about six months old. The old adage, 'Soon ripe, soon rotten,' applies frequently to this breed. There were far more good old birds up to four years of age 20 years ago than at the present time. Enormous combs should not be encouraged in either sex, as in the cocks many have their combs kept up by artificial means, and what miserable objects they look on the last days of the Show; whereas the neat-headed ones are as good-looking the last day as on the first. My ideal of what a Minorca cock should be is—he should have a neat, clean-cut, evenly-serrated comb, well built, as free from thumb marks or twists as possible, and slightly rough in texture, the comb to extend well over the back of the head. What I prefer is a long, firm comb, not too high, and on no account to project over the point of the beak. I feel so strongly on this latter point or defect that I would make it a disqualification for the front of the comb to project over the tip of the beak. As to the number of spikes, one more or less should never go against a bird, so long as they are well placed. The face, a rich, bright red, *right up to the edge of the lobe*, as fine in texture as possible, with a very few hairs, or small feathers. The head and face should be long and deep, especially in cheek. Many cocks are too short-headed, which is mostly accompanied by coarseness, and they cannot carry a long comb in comfort.

The lobes of an almond shape, medium in size, and fitting moderately close to the head, fine in texture, and of a good white colour; neck, long, and nicely arched with a full backle; body, large, broad at shoulders; chest, very full and rounded. Many birds fail here, being flat and cut away like a Malay, and it is a fact to be regretted that so many Judges seem to be entirely ignorant on this point. Back, long, and nearly as wide the tail as at the shoulders. Again, many birds taper away like the Game. The tail well arched, and full, carried well back, with plenty of side or secondary sickles; legs and feet, medium in length, fine in bone, the legs placed as near the centre of the body as possible, so that the bird is evenly balanced. The shape of the body should be square and compact, carriage almost level, so that the bird can move about with ease, and, however sharply he is stirred up, will never present a flat chest or squirrel tail, as is the case with the majority of upright carriage birds.

"The hen should be neat in comb, arched if possible, so that she can see on both sides; comb, very even in serration. I would be more severe on an unevenly-serrated comb on a hen than on a cock. The comb of good substance, firmly adhering to the head, and well finished at the back; face, a rich, bright red. Most hens are darker in face than cocks, and have more hairy feathers on the face; but a plucked face should always be passed. The lobes to stand well out, and look as if fitted into the face. I must admit that I like to see a large lobe on a hen. It seems to show up the head so much. Body, large, square, long, and deep behind; tail, full, neat, and should be carried almost on a level with the back; legs and feet, same as the cock's; the plumage, a good glossy black, close and tight in feather. A great number of Minorcas are loose in feather, and appear larger to the eye than they really are, thus deceiving an inexperienced Judge as to their actual size. For that reason they should be handled when judging. I have noticed birds winning with almost as much fluff and feather as a Cochin.

"The Modern Minorca is a difficult bird to breed to anything like perfection, and the percentage of good birds that are bred from the very best stock is far below what should be. The best Show birds do not always 'nick well,' and for this reason I advise all Minorca breeders to avoid continually using fresh blood, without they first discover the pedigree of the bird or birds intended to be used, as, from my experience, an inferior-looking bird from a good strain is far superior to a large prize-winner loosely bred. I at one time obtained from England a very fine looking Minorca cockerel; but after results pointed conclusively to the fact that he was evidently bred from a very heavy-combed Minorca cock and a Black Plymouth Rock hen. In any case, both he and his progeny all went 'into the pot.'

"As a Show bird and popular Fowl the Modern Minorca now stands at the head, the numbers now bred being enormous, and I hope this satisfactory state of affairs will long continue, and if Fanciers will try their utmost to breed to the Minorca Club's Standard, or at least give the Standard a little study, a great improvement will be the result."

For the following additional notes on this variety we are indebted to Mr. Oscar Wilson, of the Bonaventure Poultry Farm, Mount Druitt, N.S.W. Mr. Wilson writes:—

"This breed has been improved greatly during the past nine or ten years, and the Minorca of the present day, with its sprightly, upright carriage, forms quite a contrast to the old low-legged type, with its dull, sooty plumage, immense coarse combs, and wattles. Has the change been for the better? Yes, I think so; and I consider the modern type of Minorca to be a much better bird in every particular than the old Leghorn type. In the first place, it is a far larger bird, thus being of more value for the table. I have frequently bred cockerels that weighed $7\frac{1}{2}$ lbs., and one cock, I remember, reached the great weight for a Minorca of $10\frac{1}{4}$ lbs. Then, again, they are, if anything, better layers than the old type, laying equally as large an egg, the latter proving to be a much hardier-constituted bird than its predecessor. The plumage, instead of being a dull, sooty black, is now of a brilliant purplish shade, and the comb and wattles fine as silk to the touch. An up-to-date Minorca cock should be very large in outline, deep bodied, well up on the leg, without being stilty, broad in chest, with long, flat back, and tail carried well back. The comb should not be too large, but evenly and deeply serrated, free from any thumb marks, twists, or side sprigs, being set

firmly on the head, and the back portion of the comb to follow the curve of the neck. Judges at our Show place the most weight on mere size of comb, mostly awarding prizes to the birds with the largest combs. This is a mistake, for body, shape, carriage, and size should come first. Anyone can breed excellent SMALL Minorcas, with plenty of comb; but *all* breeders know how difficult it is to produce birds of all-round merit, and still retain size. I have had Minorcas for over 14 years, and lay claim to the honour of being the first to exhibit the Modern, or New Type, in N.S.W."

SCHEDULE FOR JUDGING MINORCA FOWLS.

GENERAL CHARACTERISTICS.—COCK.

Head.—Long and broad, so as to carry the comb erect.

Beak.—Fair length, strong and stout at base.

Comb.—Single, large, evenly serrated, perfectly upright, set firmly on the head, straight in front, free from any twist or thumb mark, reaching well to the back of the head, moderately rough in texture, free from side sprigs.

Wattles.—Long, and well rounded at the extremities.

Face.—Fine in quality, free from white, and as free from hairy feathers as possible.

Ear-lobes.—Medium in size, smooth, flat, fitting closely, and almond-shaped.

Eyes.—Full and sparkling.

Neck.—Long, nicely arched, with full, flowing hackle.

Body.—Broad at shoulders, square, and compact.

Back.—Broad, and of good length.

Wings.—Fairly long, well carried closely to the body.

Breast.—Full, prominent, and well rounded.

Thighs, Legs, and Feet.—Medium length, and strong; four toes on each foot.

Tail.—Full, sickles long, well curved, and tail carried well back.

Size.—Medium.

Carriage.—Smart, upright, and graceful.

Weight.—From 6 to 9 lbs.

GENERAL CHARACTERISTICS.—HEN.

Head.—Long and broad.

Beak.—Fair length, strong and stout at base.

Comb.—Single, fair size, evenly serrated, arched, drooping well down over one side of the face, fairly rough in texture, free from side sprigs.

Wattles.—Long, and well rounded at the extremities.

Face.—Fine in quality, free from white, and as free from hairy feathers as possible.

Ear-lobes.—Medium in size, smooth, flat, fitting closely, and almond-shaped.

Eyes.—Full and sparkling.

Neck.—Long, and nicely arched.

Body.—Broad at shoulders, square, and compact.

Back.—Broad, and of good length.

Wings.—Fairly long, well carried closely to the body.

Breast.—Full, prominent, and well rounded.

Thighs, Legs, and Feet.—Medium length, and strong; four toes on each foot.

Tail.—Close fitting, and carried well back.

Size.—Medium.

Carriage.—Smart and graceful.

Weight.—From 5 to 7 lbs.

POINTS OF COLOUR IN BLACK MINORCAS.
IN BOTH SEXES.*Beak*.—Dark horn colour.*Eyes*.—Dark as possible.*Comb, Face, and Wattles*.—Dark red.*Ear-lobes*.—Pure white.*Legs and Feet*.—Black, or the darkest slate.*Plumage*.—Bright, hard, lustrous black.POINTS OF COLOUR IN WHITE MINORCAS.
IN BOTH SEXES.*Beak*.—White.*Eyes*.—Red.*Comb, Face, and Wattles*.—Bright red.*Ear-lobes*.—Pure white.*Legs and Feet*.—Pinky white.*Plumage*.—Glossy white.

A bird perfect in shape, size, colour, condition, comb, lobes, eyes, legs, and feet, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Defects in face	...	...	...	...	...	...	...	...	...	15
Bad shaped or twisted comb	...	...	...	...	...	...	...	...	...	15
Want of size	...	...	...	...	...	...	...	...	...	15
Wrinkled, folded, or stained lobes	...	...	...	...	...	...	...	...	...	10
Bad colour of plumage	...	...	...	...	...	...	...	...	...	10
Want of condition	...	...	...	...	...	...	...	...	...	10
Want of style, shape, or symmetry	...	...	...	...	...	...	...	...	...	10
Bad-coloured legs	...	...	...	...	...	...	...	...	...	5
„ eyes	...	...	...	...	...	...	...	...	...	5
„ beak	...	...	...	...	...	...	...	...	...	5

100

DISQUALIFICATIONS.

Crooked breast, crooked back, wry tail, squirrel tail, white in face, feathers on legs, any other than single comb, side sprigs on comb, plumage any other than black in the Black, white in the White varieties; more than four toes on either foot, legs any other colour than black or dark slate in the Black variety, or white or pinky white in the White variety.

We are indebted to the kindness of Mr. W. Samson, the Hon. Sec. of the *Victorian Spanish, Andalusian, Minorca, and Leghorn Club*, for the Club's Standard for MINORCAS. *This is as follows* :—

GENERAL CHARACTERISTICS.

COCK.

Beak.—Fairly long, but stout; *Head*, long and broad, so as to carry comb quite erect; *Comb*, single, large, evenly serrated, perfectly upright, firmly set on head, straight in front, free from any twist or thumb mark, reaching well to the back of the head, moderately rough in texture, free from any side sprigs; *Wattles*, long, rounded at the ends; *Face*, fine in quality, as free from feathers or hairs as possible, and not showing any white; *Ear-lobe*, medium in size, almond-shaped, smooth, flat, fitting close to the head; *Eye*, full, bright, and expressive; *Neck*, long, nicely arched, with flowing hackle; *Body*, broad at shoulder, square and compact; *Back*, broad, and rather long; *Wings*, moderate in length, neat, and fitting close to body; *Breast*, full and rounded; *Thighs, Legs, and Feet*, medium length, and stout; *Toes*, four; *Tail*, full, sickle long, well arched, and carried well back; *Size*, large; *Carriage*, upright, graceful; *Weight*, from 5½ lbs. to 8 lbs.

HEN.

Beak.—Fairly long, but stout; *Head*, long and broad; *Comb*, single, fairly large, evenly serrated, arched, drooping well down over side of face, slightly rough in texture, free from any side sprigs; *Wattles*, long, rounded at the ends; *Face*, fine in quality, as free from feathers or hairs as possible, and not showing any white; *Ear-lobe*, medium in size, almond-shaped, smooth, flat, fitting close to the head, rather more rounded than in cock; *Eye*, full, bright, and expressive; *Neck*, long, nicely arched; *Body*, broad at shoulder, square and compact; *Back*, broad, and rather long; *Wings*, moderate in length, neat, and fitting close to the body; *Breast*, full and rounded; *Thighs, Legs, and Feet*, medium length, and stout; *Toes*, four; *Tail*, full, neat, carried well back; *Size*, large; *Carriage*, upright, graceful; *Weight*, from 5 lbs. to 6½ lbs

COLOUR OF BLACK MINORCAS.

COCK AND HEN.

Beak.—Dark horn colour; *Eye*, dark; *Comb, Face, and Wattles*, dark blood-red; *Ear-lobe*, pure white; *Legs*, black or very dark slate; *Plumage*, glossy black.

COLOUR OF WHITE MINORCAS.

COCK AND HEN.

Beak.—White; *Eye*, red; *Comb, Face, and Wattles*, blood-red; *Ear-lobe*, pure white; *Legs*, pinky white; *Plumage*, glossy white.

Standard by which the Breeder can Judge the Value of Defects in the Minorcas.

(A Bird perfect in shape, style, and colour, to count in points 100.)

Defects in face—bloomed red, coarseness, or too hairy	...	...	...	...	...	...	...	...	15
Bad shape or twisted comb	...	...	...	...	...	...	...	...	15
Want of size	...	...	...	...	...	...	...	...	15
Wrinkled, folded, or stained lobe	...	...	...	...	...	...	...	...	10
Defects in colour	...	...	...	...	...	...	...	...	10
Want of condition	...	...	...	...	...	...	...	...	10
„ „ style and symmetry	...	...	...	...	...	...	...	...	10
Too light legs, eyes, or beak	...	...	...	...	...	...	...	...	8
Crooked breast-bone	...	...	...	...	...	...	...	...	7
									100

DISQUALIFICATIONS.

White in face, wry or squirrel tailed, feathers on legs, other than single comb, coloured plumage, other than black or white in the several varieties, other than four toes; legs, other colour than black or slate in Black Minorcas, or white in White Minorcas.

CHAPTER XXXVII.

LEGHORNS.

THIS breed of Poultry, though comparatively of recent introduction to English-speaking countries, possesses a lineage quite as long as the best known varieties. The various colours of Leghorns—White, Brown, Buff, Mottled, etc.—are the common Fowl of Italy, and have been bred in that country for very many centuries. The name which the tribe now bears is derived from the fact that they were first imported to America from the port of Leghorn, in Italy. The earliest authentic record we have of the breed's first introduction to America is the statement made by Mr. O. H. Peck, of Franklin, Massachusetts, who states: "In 1835 Mr. N. P. Wood, of Fulton Street, New York City, U.S.A., received as a present some of these Fowls direct from Leghorn. They were of the Brown variety." At the same time great controversy has arisen as to the actual date of their first importation, Mr. I. K. Felch, the eminent Poultry Judge of America, stating "that 1853 was the first year. In the year 1858 the Whites were first introduced, and in 1863 the "Stetson" birds were imported. These two importations varied considerably in type, and the difference in the colour of the legs was most pronounced. Those imported in 1858 had *white* legs, those in 1863 *yellow* legs and clear yellow beaks. It seems certain that the first importations were mostly mongrels, as rose-combed chickens were produced from single-combed parent stock." Again, a visit to Italy at the present time in search of "Leghorns," as we are familiar with them, would be an almost hopeless task, as in nearly every village Browns, Blacks, Whites, Buffs, and Cuckoos would be found running together, and in-breeding at will. In their native home the Fowl is valued for the number of eggs they lay, and for table use, "Fancy Points" being ignored entirely. This gave the American Fancier an opportunity to separate them into families, and fix the type and markings definitely. There are now bred in that country Single and Rose-Combed Browns, Single and Rose-Combed Whites, Blacks, Buffs, Piles, Cuckoo, and Silver and Golden Duckwings, and still another variety of the tribe, called Partridge, or Golden Pencilled. This latter variety was first exhibited in 1896, at the Ayer Show, Mass., U.S.A., by Mr. C. C. Wood. This gentleman states that several of his Single Combed Brown pullets sported regular marked Partridge colour, and these he mated back to the old cock bird with wonderful success. This year was the first time he exhibited them, and while he says that they are not ready to be sold as a new breed, he believes in another year he will have the type fixed, and that they will breed true. While the feathering is exactly similar to the Partridge Cochin, he declares that no foreign blood has been introduced whatever, but that it all came about accidentally, and he determined to make the most of it. He prefers the name Golden Pencilled in preference to Partridge Leghorns, as he does not wish it to conflict with the new variety (Partridge Wyandottes).

The first notice of the breed being introduced into Great Britain was in 1872, being exported to that country from America. At first the Browns were called "Red" Leghorns. They grew rapidly in popular favour, proving themselves to be marvellous egg-producers. That this race of Fowls must be of astounding vigour, and of great antiquity, is beyond doubt, and they most certainly date back to a period long before the Christian Era. In proof of the latter fact, in the National Museum, at Naples, among the thousands of valuable treasures excavated from the ruins of Pompeii, are some beautiful and well preserved Mosaics. Among these there is a fine Mosaic of a cock, life-size, in all the splendour of colouring of the Modern Brown Leghorn of to-day. It is composed of minute pieces of coloured marble and glass—the colours absolutely imperishable, and is, therefore, an eloquent testimonial as to the ancient lineage of the race. Another Mosaic, in the same collection, represents a Brown Leghorn hen in general colour, but with a slight sprinkling of white on the cushion.



Brown Leghorn Cock.

Bred by Mr. F. Thompson, "Kingswood," Kenthurst, N.S.W., from Imported Stock from Mr. L. C. Verrey (Eng.)
Winner of 1st Prize at Bathurst; 2nd N.S.W. P.P.C. and D. Soc.; and 1st Poultry Club of N.S.W.

As egg-producers, various prominent Poultry authorities in America speak highly of the Brown variety, one breeder stating that he possessed one hen which laid over 300 eggs in a year, Mr. I. K. Felch also stating "that he knew of one hen of the original importation which laid one hundred and fifty-nine days in succession, and had the assertion of a friend that one hen laid two hundred and seventy-five eggs in a year; but the largest number of which I know personally, and which I deem very extraordinary, was two hundred and fifty. An average, in my experience, has been from 175 to 200 eggs in a year."

That Leghorns have been very much improved by the art of the breeder is without doubt. The birds now exhibited have lost many of the marked original characteristics, though a certain and decided general improvement in type, Fancy points, and plumage has taken place. The whole race of Leghorns is extraordinarily hardy, active, and vigorous, and will exist under conditions and surroundings that would prove fatal to many breeds. A warm or hot climate suits them infinitely better than a wet or cold one. Their main characteristic—that of egg-producing—is beyond doubt, and they are aptly named the Queen of Layers, producing eggs of a delicate flavour, and with a white and smooth shell. A Leghorn egg alongside of a Cochins or Langshan egg is slightly insipid, but to some palates this is an advantage. The hens belong to the non-sitting varieties, and where quantity of eggs is a desideratum this is a further advantage. A great mistake, and one generally recognised, is that the cockerels are of little or no use for table purposes. This is not altogether true, as a cockerel five or six months old is a fair bird for home consumption, though not to be compared in quality and quantity of meat with any of the Game races or Dorking. Though the hens generally are non-sitters, there is an occasional instance or two on record in which pure Leghorn hens have taken to the nest, hatched the eggs, and proved excellent mothers; but these cases are very rare indeed, and the breed may with comparative safety be placed amongst the non-sitting varieties. As a Farmer's Fowl there are few, if any, to surpass them, costing, where good range can be allowed, but a trifle to keep in the way of bought food; though, again, if kept in confinement they will do almost as well, if liberally supplied with good food, pure water, and an abundance of green food. The chickens are very precocious. Cockerels often begin crowing at the age of nine or ten weeks, and pullets starting to lay at from eighteen to twenty-two weeks old. Leghorns are bred in quite a variety of colours, viz., White, Brown, Pile, Cuckoo, Duckwing, Buff, and Black, also minor varieties such as the Mottled, Rose-combs, Dappled Greys, and Partridge. Chief of the whole race stands the White variety, though they have suffered much by the craze for size, and it will not be wide of the mark to state that the White Minorca blood is much in evidence in some specimens. As a rule, the Whites are somewhat larger than the other colours. In mating White Leghorns for breeding, little difficulty is likely to arise on the question of feather properties; it is the Fancy points, such as combs, wattles, ear-lobes, legs, and feet, that will give the most trouble.

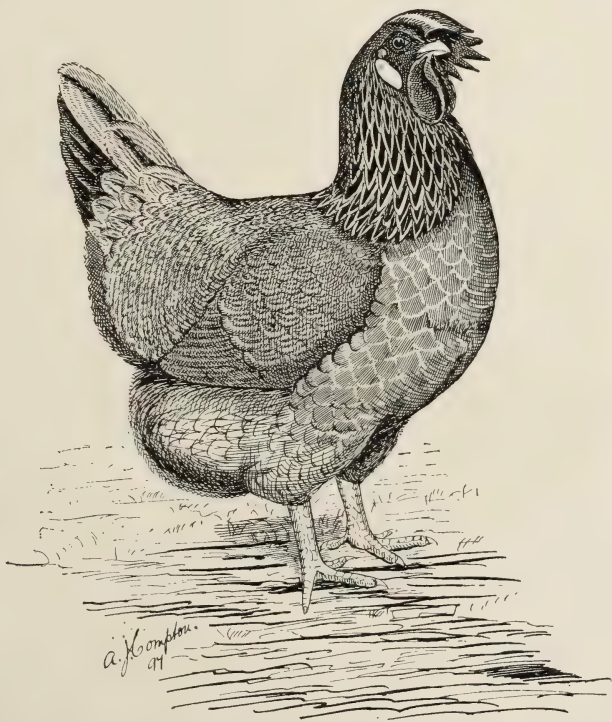
The following notes on the Leghorn Fowl are kindly supplied by Mr. J. B. Crawford, "Broomward," Alington, Victoria. Mr. Crawford writes:—

"This variety seems to be specially adapted to the Australian climate, its natural home being Italy, the climate of which is very similar to this country. I have noticed in parts of Italy that most of the Fowls there have many of the characteristics of our Show Leghorn, but a pure specimen is rarely if ever met with; all are small, weedy, and mixed in colour. The Americans first took them in hand, and it is about forty years since they first arrived in England as a pure variety. The Whites were the first imported, followed shortly afterwards by the Brown. In later years the enterprising English Fancier has produced the Pile, Buff, Duckwing, and Black Leghorn. The Leghorn thrives well in almost any climate, but is easier reared and comes to greatest perfection under sunny skies, although no finer specimens are to be seen than at some of the leading English Shows. These are not produced without a considerable amount of care in housing, feeding, and artificial heat in cold weather. In Australia the best months to hatch Leghorns, especially for Show purposes, are August and September; these ought to "spring their combs" in January or February, and, as the weather is generally warm and settled at that period of the year, no extra care is required to develop all the points requisite in Show specimens, but, as most of the leading Shows take place during the winter months, it is wise to have a good supply of later hatched chickens, as a Leghorn pullet never looks

better than when just starting to lay. The type has varied a good deal at various times in winning birds at the principal Shows, and I believe also in England, some Judges favouring the Gamey and some the Minorca type; but, from reports of recent Shows in English Fanciers' papers, I notice that many of the prize-winning cockerels have been commended as being 'nice' and 'cobby' in type. Now, I consider the word 'cobby' just fits the true Leghorn; not long in back nor showing so much thigh as the Minorca, nor whip-tailed like the Game Fowl, but full in tail, with long sickles, the tail being carried well up. The White Leghorn has improved very much of late years in many points, especially in size and colour; and though I prefer them medium in size, still, as all breeds quickly deteriorate through in-breeding, dry seasons, and sometimes neglect and want of knowledge on the part of Poultry Farmers, the Fancier comes in useful by supplying large cockerels for a change of blood, and to improve the size and stamina of the various breeds throughout the Colonies. In colour we can now produce White cockerels—so fixed a white that no amount of sun will tan their plumage—but these often fail in leg colour, although there are some Whites that never lose the rich yellow colour of legs and beak. Some years ago most of the winning Leghorns showed white in face, and a sound-faced old cock was rarely seen, but, thanks to the efforts of the Victorian Leghorn Club, they have now much improved in that respect, and by careful breeding it is to be hoped that white in face will become unknown, and still leave us fair-sized smooth white lobes. The Brown Leghorn is a very popular variety in this country, but scarcely so hardy as the White, probably owing to excessive in-breeding. Like the Andalusian, breeding for colour often tempts the breeder to in-breed. I think they thrive better than the White in the hotter parts of the Colonies. In Gippsland and Upper Yarra districts of Victoria, which are wet and cold in winter, there are few Browns to be seen, and Whites are very plentiful, whereas the Browns predominate in the Wimmera and hotter parts. It may be owing to the survival of the fittest. In my opinion we are a long way behind the English breeders of Brown Leghorns in Show Pullet Breeding, for how few good-coloured brown pullets do we come across even at our best Shows, but we can hold our own in cockerels, some of the winners at our Shows being fine specimens. In breeding pullets, it is not so much the *colour* of the stock cock that is to be considered, but rather how he was bred. Many make the error of selecting a pullet-breeding cock on account of the bird having a light or washy coloured hackle, without regard to strain, etc., the result being dark pullets with cloudy hackles. It is not an easy matter to select a pullet-breeding cock by appearance. I prefer to see them while in their chicken feathers; but, if one has to be chosen which has developed adult plumage, I would select a bird with a light golden hackle, fairly well striped, and rather dull in colour of red throughout back and wings, the secondaries being as light in colour as possible, but the main point is 'the strain,' that is, if he is a full brother to good sound-coloured pullets. I also prefer a pullet breeder to have his comb set rather back on the head; the pullets from him will not be inclined to have folded or ugly combs. A falling comb in the stock cock, if otherwise good, is even an advantage.

"In mating for cockerels similar lines ought to be followed, viz., mating Show cocks with cockerel breeding hens. These latter should have rich-coloured, well-streaked neck hackles, dark in body, and if you wish to improve on the richness of the sire's colour mate him with hens ruddy or rusty on the wing, also full in tail, so that the cockerels may have the same quality. The foregoing may seem troublesome to a beginner, but, if he is a true Fancier, the pleasure of producing nearly perfect specimens will more than compensate him.

"The Pile Leghorn can hardly be beaten by any variety as prolific layers. No matter what time of the year, if you have a few Piles in your yard, you will never be without eggs. They have the advantage over other coloured varieties, inasmuch as there is not nearly so great a temptation to in-breed them, the tendency being to become lighter in colour in each generation, so that a recourse to the Brown is required occasionally, to keep up the colour in the cockerels especially. I find them breed wonderfully true to feather, notwithstanding the introduction occasionally of 'Brown' blood. They have also one very great advantage over the Browns, as Show cockerels and pullets can be bred uniformly from the same parents. By mating a Show Pile cock with dark and light hens respectively, a much greater percentage of Show birds



Brown Leghorn Hen.

The property of Mr. Fred. Thompson, "Kingswood," Kenthurst, N.S.W., Imported from L. C. Verrey (Eng.)

Winner of 1st Prize at Bathurst; N.S.W. P.P.C. and D. Society and Wagga Shows, 1896; and 1st Royal Agricultural Society and Poultry Club Show 1897.

—and good ones, too—can be reared from one pen of Piles than from two pens of Browns mated for cockerel and pullet breeding. A Pile cock seldom reaches perfection in plumage until his second year.”

To the kindness of Mr. Arthur Lubeck, of “Woodbine” Poultry Yards, Glenfield, N.S.W., we are indebted for the following notes on the White Leghorn. Mr. Lubeck rears annually a very large number of this variety, and speaks most highly of their good qualities. This gentleman states :—

“The White Leghorn is, above all other varieties, the most profitable. Its transcendent virtues are its laying capabilities, and its extreme hardiness. For egg-production, the White Leghorn is unsurpassed, even under most unfavourable surroundings, as to housing and space. It will produce a remarkably large number of very large eggs, and that, too, at a time of year when eggs are almost unobtainable from other Fowls. The White Leghorn lays when eggs are scarce. This is a point which should be kept in view by anyone who contemplates supplying the market with fresh eggs. Any hen will lay in Spring and early Summer, when eggs are scarcely worth marketing ; but a bird that will continue to lay through the Autumn and Winter months is the one that the Poultry Farmer should foster. Market eggs are at their highest value in April, May, and June, and in those months the consistent White Leghorn keeps on producing an abundance, frequently laying right through the moult. The question is constantly asked, ‘Does Poultry Farming pay?’ There is no doubt that a flock of good White Leghorns, kept under proper conditions, will bring in a very excellent return for the capital and labour necessary to work a Poultry Farm. With three hundred (300) White Leghorn hens, young and vigorous, and not in-bred, a man could make a comfortable living for himself and family, without any laborious work. Start right, and success is possible. Take no chances ; but if your object is to produce eggs for market, use the variety that experience has proved to be the best. There is no Fowl more hardy, or more easily reared than the White Leghorn. They will stand any amount of hardship and exposure, and seem to thrive under any conditions whatever. With a good run, they will find a large amount of their own food, and thus will cost less to keep than the heavier and larger varieties. They also do well in confinement, and are ever vigorous and active looking, being always on the alert. It is said the White Leghorn is not a good table bird. I do not claim that it is. Its sole business is to produce eggs, and it generally lives quite up to its reputation.”

Our own experience with the White variety extends over a period of ten years, and we can fully endorse all that has been written in their favour by our valued contributors. The chickens are the easiest reared of any breed we have kept, extraordinarily hardy, and arrive at maturity quickly, the pullets, fulfilling their mission in life very early, producing fairly large white eggs, and these in abundance. To the Poultry keeper in town they are an invaluable Fowl, generally laying during the early Autumn and Winter, when high prices are demanded for new-laid eggs, and at a time when most other varieties rarely pay for the food they consume. We have proved that they bear confinement exceedingly well, even under this disadvantage, appearing lively and active at all times. When allowed the run of a yard, they have a happy knack of finding much that would be discarded by other Fowls. They do not, even if fed liberally, seem predisposed to accumulate undesirable fat—a point which tells greatly in their favour. They breed very true to feather and general Leghorn characteristics, so that little fear need be occasioned of the flock possessing a mongrel appearance after a few seasons. The laying capabilities have been sacrificed in some strains to gain and fix Fancy Points ; but the former is a latent characteristic, even in Show birds, and will quickly exhibit itself in the progeny if crossed with another strain, proving that it is by the art of the breeder alone, by working in another direction, that this good quality is suppressed for the time. Our experience with other breeds has been dearly purchased as far as egg-producing is considered, and were it not for the fact of also keeping White Leghorns, we would have been compelled to purchase eggs for home consumption, though often having from 50 to 60 hens of another breed in the yards at the time. There are, however, other traits in their character which are not to be commended when kept in small yards. Firstly, they are, more or less, wild, and easily startled ; and, secondly, it requires an extra high fence, and with wire netting on top of that, to keep them within bounds. This is the worst trait they possess, but one easy enough to overcome by various means, such as cutting the primary feathers of one wing straight across (this, if done properly, will

not disfigure the bird), or by placing a tape around in the manner as described for Slipwing, in Chap. 14, or by covering in the run with wire netting, or by placing wire netting on frames upright around the top of the fence. Where ample range can be given, no trouble is likely to ensue, and as they are the very best foragers when kept under the latter conditions, they cost but a trifle to keep, and give an enormous return for the outlay.

SCHEDULE FOR JUDGING LEGHORNS.

The general characteristics, which apply to the whole race, are as follows :—The Cock : The head should be deep, and of fair length ; beak, rather long and fairly straight (yellow in colour in the white variety, often tinged with horn colour down the upper mandible in the other colours) ; comb, single, upright, bright red, fine in texture, fairly large, deeply and well serrated with four or more spikes, the comb well set on the head, extending well over the back, and quite free from twists, thumb marks, or side sprigs ; face, bright red, free from white spots or wrinkles ; eyes, bright red and sparkling ; wattles, bright red, rather long and thin, fine in texture, and free from folds ; ear-lobes, well developed, rather long, smooth, and free from folds or red spots, and as white as possible, though many otherwise good birds have a yellowish tint in lobes ; neck, long, and well arched, well covered with long, flowing hackle feathers ; back, moderately long, inclining to roundness and sloping towards the tail ; wings, large, but carried well clipped up to the body ; breast, fairly full, and carried prominently ; body, broad in front, narrowing towards the tail ; legs and feet, rather long and slender, bright yellow in colour ; tail, large, full, and carried well up, with flowing sickle feathers in abundance ; carriage, upright, active, and sprightly ; weight, from 5 to 7 lbs., or more, if elegance is not sacrificed. The Hen : Head, inclined to be slightly flat on the top ; comb large, fine in texture, evenly serrated, rising straight from the top of the head, then forming a graceful curve over to one side. In beak, legs, and feet she should be similar to the cock ; ear-lobes, large, smooth, and free from folds or wrinkles, lying, however, closer to the head than the cock's ; eyes, full and sparkling ; face, red, and quite free from white ; wattles, red, fine in texture, nicely rounded, of fair length, and quite free from folds ; neck, well arched ; breast, full, and carried rather prominently ; wings, large, well clipped up to the body ; tail, full, and carried well up ; general appearance, alert, active, and sprightly ; weight, 4 to 5 lbs., or more.

The plumage of the White variety should be a pure and spotless white throughout, and possess great lustre. The sun will, however, tan the plumage of the cocks, giving them an objectionable yellow appearance, which, however, can be obviated to a great extent by providing ample shade. The hens rarely lose much of their purity of feather until approaching the moulting season.

The Brown Leghorn is very difficult to breed right up to Standard requirements in colour, more especially the pullets. The Show or Exhibition Brown Leghorn cock should be a golden bay in hackle feathers, each feather having a pronounced black stripe extending down the centre. The feathers on the top and back of head, also those near and around the throat, are golden bay, without markings. Though a lighter or lemon-coloured hackle is often favoured by Judges, and is undoubtedly more striking, it will be found that birds with these light-coloured hackles beget cockerels and pullets very washy and pale in colour. The back, shoulder-coverts, and wing-bows are a deep solid red, approaching crimson. The wing-bars are a purplish blue, with great lustre. The wing secondaries deep clear bay on the outer web, and black on the inner, forming, when the wing is closed, an unbroken surface of bay, each and every feather having a purplish blue spot at the end, forming a bar from the wing-bar to the tip, on the top, or upper side of the secondaries. The saddle feathers are orange-red, with a black stripe similar to the neck hackle. The breast, thighs, and under-parts are a glossy greenish-black. The tail is a sound black, the sickles and secondary sickles being glossy greenish-black, the tail coverts black, more or less edged with bay. The Show or Exhibition hen's hackle is a rich golden yellow, each feather boldly and distinctly striped with black ; breast, a bright salmon red, with shafts of a lighter shade. The feathers under the throat are of a slightly deeper hue, and those on the thighs and under-parts merge gradually into an ashy shade under the tail. The ground colour of the body is a light brown, minutely and evenly pencilled with black. This colour should extend all over the wings and top outer feathers of the tail, the other feathers of tail being as dark as possible.



White Leghorn Cock.

Bred by Mr. Fred Thompson, "Kingswood," Kenthurst, N.S.W., from stock imported from Messrs. Abbott and Jones (Eng'), winner of numerous prizes at the Leading N.S.W. Poultry Shows.

Pile Leghorns were produced by systematic crossing of the two first-named, and are a beautiful variety when seen in anything approaching perfection in colour and markings. They should resemble the Pile British Game, with the shape and characteristics of the Leghorn. This breeding to colour was by no means as easy as would appear, the progeny for some years either being far too light or washy in colour, or, on the other hand, too heavily marked, especially on the breast of the cock and back and wings of the hen. However, the breed is now fairly established, and bids fair to rival both the Whites and Browns in popularity. It goes without saying that they must perforce be even stronger in constitution, there being little if any temptation to in-breed. In colour, the cock's hackle should be a light chestnut-red; back shoulder-coverts and wing-bows, rich deep crimson or claret; wing-bars, white, or slightly laced with light chestnut; secondaries, when closed, light chestnut-red; breast, a creamy white, the feathers near the throat lightly laced with pale gold; tail, white or creamy white, free as possible from black splashes, spots, or ticks; thighs, belly, and under-parts, as white as possible. The hen's hackle should be a pale chestnut or deep gold, with a white streak in the centre of each feather; the back a creamy white, faintly laced with gold; wing-coverts, creamy white, a trifle heavier laced than the back; breast, a deep salmon-red or rich chestnut, shading off to a creamy white on thighs and under-parts; tail, pure white.

Cuckoo Leghorns, as a general rule, are smaller than any of the previously mentioned; the difficulty experienced in breeding the cockerels up to Standard requirements militates against them becoming popular. There is, however, not nearly so great a difficulty in breeding the pullets to colour and markings. The ground colour of both sexes is a light grey or greyish white, marked throughout with bands of dark blue, somewhat similar to the Plymouth Rock. The shades of colour vary considerably, in some specimens the bands or markings being nearly black, on a grey ground.

In mating this variety, birds light in colour should not be mated together, the tendency being to breed lighter and washier each generation; and, on the other hand, very dark-coloured birds on both sides should be avoided, but in selecting the stock bird a light cock should be mated with rather dark hens, or a dark cock with hens light in colour. By this means the progeny will come uniformly right or medium in shade, and as desired for the Show pen. In any case, a cock with white in tail or primary feathers of the wings should not on any account be bred from, as these faults are distinctly hereditary and extremely difficult to eradicate when once in a strain.

Duckwing Leghorns are quite a recent production, and in beauty of plumage quite surpass their brethren. Similar to the Game, they are shown in two distinct colours, that of the Silver and Golden. This variety is rather more inclined to the Game type, and, in fact, their origin rests more or less with the Game Fowl. The Silver-Grey cock's head and hackle feathers should be a pure silvery white; back, shoulder coverts, wing-bows, secondaries, and saddle hackles, pure silvery white; wing-bars, glossy greenish-black; shoulder-butts, breast, tail, and under-parts, glossy black; the tail sickles and secondary sickles, glossy greenish black. The hen's hackle feathers white, with a black stripe running down the centre of the feather, the feathers on top of the head being pure white; breast feathers, a light salmon colour, with shafts of a lighter shade; back and wings, pale French grey, with very minute markings of black. This colour runs up the top outer feathers of the tail, the rest of the tail being a darkish grey, almost black.

The Golden Duckwing cock's hackle feathers should be of a light creamy shade, as free as possible from streaks; back, shoulder coverts, and wing-bows, a light maroon or golden; wing-bars, bright metallic blue; wing secondaries, when closed, pure white, with a blue-black spot on the end of each feather, forming a bar from wing-bar to tip; saddle feathers, light golden; breast, thighs, under-parts, and tail, black; sickles and secondary sickles, glossy greenish-black. The hen's head and neck hackle white, with a black stripe in the centre of each feather; breast feathers, a rich salmon-red, with shafts of a lighter shade; back and wings, silvery grey, minutely pencilled with markings of black. This colour also runs up the top feathers of the tail. The tail dark grey, almost black. Much the same method of breeding the Duckwing Leghorns to feather properties will be similar to the lines laid down for breeding Duckwing Game Fowls.

Buff Leghorns have not yet reached the high standard of the other colours, most of the cocks having more or less white in tail, and mealy in the flights; the pullets, however, are bred much nearer the Standard requirements. The cock should be of a sound lemon or orange buff colour in breast and under-parts; the hackle, back, shoulders, and saddle, either lemon or orange buff, but of a deeper tint; the tail, the same colour as the breast. The hen should be of one uniform shade of lemon or orange buff, the hackle alone being a shade deeper in tint. It is, however, rare indeed to find birds of either sex exhibiting the true Leghorn characteristics with the above-mentioned colour. There is in this variety great scope for the skill of the breeder.

Black Leghorns need little description, as they should be the counterparts of their white brethren in shape, etc., substituting black plumage for white. In the Blacks, a perfectly black tail is seldom seen, most birds showing white feathers, or black edged with white. Another difficulty in breeding the Black Leghorn is the colour of the beak and legs, the majority of the birds running sooty or yellowish-black. That this fault can be eradicated by care in breeding is beyond doubt, and in all probability a few years at most will find dark legs in Black Leghorns a thing of the past. The plumage of both cock and hen should be a bright, lustrous black. This variety must not be confounded with the Black Minorca, the style and shape of the birds being wide apart, besides the difference in colour of beak and legs.

Mottled or Spangled Leghorns are somewhat similar to the Brown variety, but the whole plumage is spotted with splashes of white similar to the old-fashioned Spangled English Game Fowl.

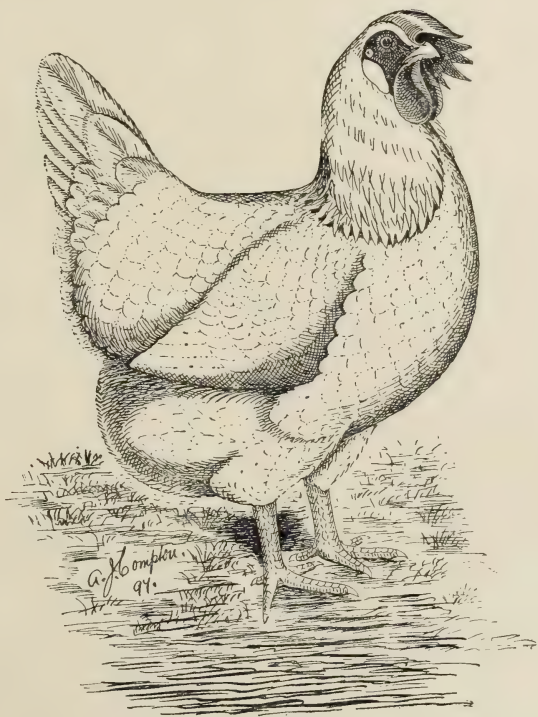
Rose-combed Leghorns are found in both White and Brown, and are identical in all respects with birds of those colours, with the exception of the comb, which should resemble the Hamburgs. As to their purity there is some doubt, but as to their laying qualifications there are none. The other colours, as occasionally exhibited, scarcely call for more than passing comment, but all seem to possess the main feature of the breed in being classed as first-rate layers—hardy, active, and vigorous birds.

We are indebted to the kindness of Mr. W. Samson, the Hon. Sec. of the *Victorian Spanish, Andalusian, Minorca and Leghorn Club*, for the Club's Standard for LEGHORNS. This is as follows:—

GENERAL CHARACTERISTICS.

THE COCK.

The *Head* should be deep, not too long, but greatly resembling the head of the Spanish. The *Beak*.—Rather long and straight, of a yellow colour, although horn colour, or a stripe of that colour running down the front (except in the White variety) is not a disqualification, and will be found in eighteen out of every twenty birds. The *Comb*.—Single, of a bright red, fine in texture, large in size, but not nearly so big as that of the Minorca, deeply and well serrated. Some Fanciers maintain that there should be only five points; but it is childish to stick at a "point." What matters it if there be a point more or less, provided the serrations be tolerably even, and the comb well carried. The *Comb* should be firmly set on, and extend well over the back of the head, free from side sprigs, twists, or thumb marks. The *Face*.—Bright red, free from wrinkles or white spots. *Eyes*.—Red, bright, and sparkling. *Wattles*.—Bright red, rather long and thin, of fine texture, and without folds. The *Lobes, or Deaf-ears*.—Well developed, more pendent than round, smooth, and free from folds or red spots. There has been much controversy about this all-important point, some Judges and Breeders making it a *sine qua non* that the lobes should be of a pure and spotless white. Though the white lobe is very ornamental and showy, yet it is not natural. The original and natural tint was cream. By this, bright yellow is not meant, but the colour of ivory. It is simply the Breeders' art that has produced the pure white. When the legs, beak, and flesh are yellow, it is contrary to Nature for the lobes to be pure white. That pure white lobes have been obtained is an undoubted fact. But how? Not by breeding from pure Leghorns, but by crossing with the Minorca. This has given increased size to the lobe, as well as purity of colour. But what has followed? Why, white spots on the face, and in some cockerels the face has been as nearly white as that of the Spanish. Shutting the bird in a dark pen will help



White Leghorn Hen.

Bred by Mr. F. Thompson, "Kingswood," Kenthurst, N.S.W., from stock imported from Messrs. Abbott & Jones (Eng.)
Winner of numerous prizes at the leading N.S.W. Poultry Shows.

to bleach the lobes, but in the pure-bred birds there will still be a tint of cream. Although several well known Breeders still maintain that they can breed birds with pure white lobes, they do not say how large a percentage of creamy-tinted ones they get. It is a well-known fact that the lobes of the female are easier to get pure white than those of the male. Where the pure white lobe has been procured for some years, the result has been loss of brilliancy in colour in legs and beak. The bright yellow and pure white will never go together. The *Neck* should be long, and nicely arched, and well furnished with hackles. The *Back* of moderate length, slightly round, and sloping towards the tail. The *Wings*.—Large, but carried tightly up to the sides of the body. The *Breast*.—Full, and carried well forward. The *General Appearance* of the body should be very sprightly, being large or broad in front, and narrowing towards the tail. The *Legs*.—Rather long and slender, of brilliant yellow, free from spots. The *Toes*.—Long and thin, spread well out; colour, bright yellow. The *Tail*.—Large, carried well up (not squirrel). It should be full, with fine flowing sickles. One of the beauties of a Leghorn cock is his tail. The *General Shape* should be light and sprightly.

THE HEN.

She is, of course, smaller than the cock, the average weight being from 4 lbs. to 5 lbs.

The *Head* should be slightly flat at the top. The *Comb*.—Large, of fine texture, and evenly serrated, rising straight up for a short distance, and then bending gracefully over to one side. It is a great mistake to think that this beautiful appendage should come flat down from the skull, and fall down over the face, so as to obscure the sight of one eye. It never was so in the original Leghorn, and such large, flabby combs point very strongly to the influence of the Minorca blood, and has spoiled the beauty of the bird. A hen with a comb that falls half to the right side, and then folds over, and the other half falls to the left (though not a disqualification), should not be bred from, or the larger percentage of the pullets from such a hen will have the same fault, and the cockerels' combs will be bulgy and thumb-marked. The *Beak* should be yellow, although horn colour is not objectionable in the coloured varieties. The *Lobes*.—It is easier to get the lobes a purer white than those of the cock. It is essential that the lobes should be large and smooth, free from wrinkles, fitting closer to the head than in the case of the cock. The *Eyes*.—Very full, and sparkling. The *Face*.—Red, and free from small feathers or hairs as possible. The *Neck*.—Well arched. The *Breast*.—Full, and carried well forward. The *Wings*.—Carried closely and firmly to the sides of the body. The *Tail*.—Full, and carried well up. A drooping tail ought to be as much a disqualification as a squirrel tail. The *Legs*.—Of medium length, bright yellow, free from dark spots. The *Toes*.—Slender, and long. These, as well as the feet, of a bright yellow, or even orange colour. The *General Appearance*.—Light and active; the carriage, sprightly.

BROWN LEGHORNS.

THE COCK.

The *Comb* should be large, well and evenly serrated, of fine texture, and carried well over the back of the head. If it be broad at the base, and firmly fixed to the head, there will be little fear of it going over. The *Lobes*.—Large, almond-shaped, rather pendulous; in texture, as much like a piece of kid as possible. The *Wattles*.—Large, and hanging well down. The *Neck* should be well furnished with hackle feathers. The colour, golden bay, each feather having a tolerably broad stripe of black running down the centre. The feathers which are near the top, that is, near and round the throat, are without the black stripe. The whole hackle, falling gracefully on the back and round the neck, should be what is known as the dark hackle, and not the light yellow, or lemon-coloured hackle, which hackle is to be avoided. The *Back* feathers are very deep red, almost crimson, of which colour are the shoulder coverts and wing-bows. The *Back*, if not perfectly straight, will cause the tail to lean either to one side or the other. The *Wing Coverts* are beautiful bluish violet, forming a broad and even band across the wing, called the "Wing-bar." The *Primary* wing feathers are brown. The *Secondaries* are very deep bay on the outer web, and jet black on the inner web. When the wing is closed, the deep bay is the only colour seen. The *Saddle* feathers are a very deep, or orange-red, some few of them having a black stripe similar to the hackle, the black stripe being very broad

at the base, and narrowing towards the point. The *Breast, Thighs, and Under-parts* are a rich glossy black, with a slightly greenish hue, free from white or brown splashes; but almost all cocks have just a few brown splashes under the tail. Young cockerels will have nearly all brown breasts, splashed with black; but this, in the first moult, will give place to the metallic black of the adult. The *Tail* is of a rich greenish-black, free from white, or partially white, feathers. The base of the tail is always surrounded by grey fluff, which is quite permissible. The *Tail Coverts* are black, edged with brown. The *Legs*.—Long and slender, of a brilliant yellow.

THE HEN.

The *Comb* should rise up straight for a short distance, and then fall gracefully over to one side. The *Wattles*.—Smaller and rounder than in the cock, of fine texture, and free from wrinkles or folds. The *Lobes*.—Fitting pretty close to the face, smooth, and as large as possible. The *Hackle* is of a very rich yellow, or golden tint, each feather distinctly striped with black. The black stripe should be tolerably broad, but the yellow or golden colour should predominate. The *Breast* is of salmon-red. The feathers which are close to the head and round the throat are of a very much deeper red; but this latter colour is graduated in tint till it mingles with the salmon-red of the breast, which colour, in turn, becomes lighter under the lower end of the breast till it assumes an ashy grey hue under the stern, and round the thighs. The *Body Colour* is of a light brown, finely pencilled with black, resembling the markings of a Partridge. The tendency of late years is to have the body colour of a dark brown, almost approaching black, with the shafts of each feather showing; but it is a mistake, as, with this dark brown, much, if not all, of the beautiful fine pencilling is lost. The *Wings* are of the same colour when the wing is closed; but when open, the secondaries have the inner web black, the same as in the cock. It very often occurs that this inner web is partially white, sometimes all white, and it is as well, if possible, not to breed from a hen having this fault. It frequently happens that the hen is good in all other points save this, and one is tempted to use her for breeding; but this fault has been proved to be hereditary, and, consequently, it should be avoided. The wing, also, will often have patches of a deep brown red on it. This is called "rust." Though it is in a certain degree a defect, yet hens with this rusty, foxy, or ruddy colour, will breed good cockerels, but not pullets. The *Tail* should be carried almost upright (be it understood, not squirrel fashion), but at a very slight angle. It should be more of a fan-shaped than whipped—that is, one feather right over the other. The latter kind of tail is too much like that of a Game hen, and makes a Leghorn look mean and deficient. The *Tail* feathers are black, some being pencilled with light brown, or having a light brown edge running up one side. The *Legs and Feet*.—Bright yellow or orange, free from dark scales or spots.

Standard by which the breeder can judge the value of defects in Brown Leghorns.

A bird perfect in shape, style, and colour to count in points 100.

DEFECTS TO BE DEDUCTED IN

THE COCK.

Too large or too small a comb	...	...	...	...	...	...	6
Badly-shaped, thumb-marked, or side sprig	...	...	...	...	...	...	6
Ear-lobe folded or wrinkled	...	...	...	...	...	...	5
Red stains on lobe	..	..	...	...	...	...	10
Wrinkled or puckered wattles	...	...	...	...	...	...	4
Want of hackle	...	...	...	...	...	...	6
Brown feathers on breast	...	...	...	...	...	...	8
Sooty legs and feet	...	...	..	...	...	...	10
Want of Condition	...	...	...	...	...	...	15
„ „ Symmetry	...	...	...	...	...	...	15
„ „ Size	...	...	...	...	...	...	15



Pile Leghorn Cockerel.

Bred by Mr. J. B. Crawford, "Broomward" Poultry Farm, Alphington, Victoria.
Winner of 1st and Special N.S.W. P.P.C. and D. Soc. Show, 1897.

		THE HEN.						
Too small a comb	6	
Side sprigs on comb	6	
Double-folded comb	4	
Ear-lobe wrinkled	5	
Wrinkled or puckered wattle	4	
Red stains on lobes	10	
Rust on wing	10	
Sooty toes and feet	20	
Want of Condition	15	
" " Symmetry	15	
" " Size	15	

DISQUALIFICATIONS. 100

Comb falling over in the cock, or erect in the hen ; ear-lobes, quite red ; white feathers, white legs, wry or squirrel tail.

Standard by which the breeder can judge the value of defects in White Leghorns.

A bird perfect in shape, style, and colour to count in points 100.

DEFECTS TO BE DEDUCTED IN

THE COCK.

Too large or too small a comb	...	...	...	...	...	...	6
Thumb-marked, or bad shape	...	...	...	...	...	...	6
Ear-lobe folded or wrinkled	...	...	...	...	...	...	5
Red stain on lobe	...	...	...	...	...	...	10
Wrinkled or puckered wattles...	...	...	...	...	...	...	4
Want of hackle	...	...	...	...	...	...	4
Legs pale	...	...	...	...	...	...	5
Faults in colour	...	...	...	...	...	...	15
Want of Size	...	...	...	...	...	...	15
" " Symmetry	...	...	...	...	...	...	15
" " Condition	...	...	...	...	...	...	15

THE HEN. 100

Too small a comb	...	...	...	...	...	...	6
Side sprigs on comb	...	...	...	...	...	...	6
Double folded comb	...	...	...	...	...	...	4
Ear-lobe wrinkled	...	...	...	...	...	...	5
Red stain on lobe	...	...	...	...	...	...	10
Legs pale	...	...	...	...	...	...	5
Wrinkled or puckered wattles...	...	...	...	...	...	...	4
Faults in colour	...	...	...	...	...	...	15
Want of Size	...	...	...	...	...	...	15
" " Symmetry	...	...	...	...	...	...	15
" " Condition	...	...	...	...	...	...	15

DISQUALIFICATIONS. 100

Comb falling over in the cock, or erect in the hen ; ear-lobes quite red, black or brown feathers, wry or squirrel tail.

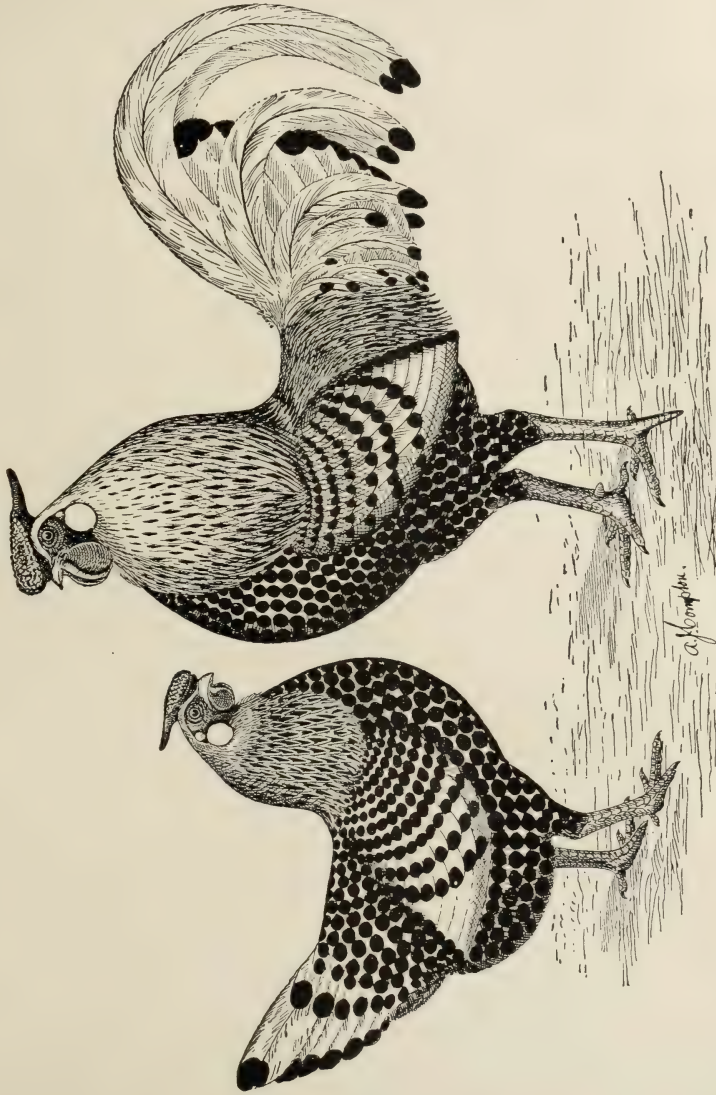
To judge the other colours, the same rule will apply to type, carriage, and Fancy points. What is chiefly looked for, in addition, is purity of feather combined with true Leghorn characteristics.

CHAPTER XXXVIII.

HAMBURGS.

To Mr. Samuel Harkness, of the Jesmond Poultry Farm, Riverstone, N.S.W., we are indebted for the following description and exhaustive hints on mating and breeding all the varieties of Hamburgs. This gentleman's advice is all the more valuable, embodying, as it does, the experience gained with this class of Fowl, both in the Old Country and in Australia. To use Mr. Harkness' own words, he writes:—

"Hamburgs are indisputably the most beautiful, as well as the most useful, of all breeds of Poultry, and no Fancier who has an eye for the beautiful can look upon a pen of Hamburgs, whether Golden or Silver-pencilled, Spangled, or Black, without being struck with the extreme beauty of form and plumage, each and all offering, in their unequalled variety of marking and colour, an amount of attraction unsurpassed, or even equalled by any other breed of Domestic Poultry. Visitors will walk from pen to pen, and from one breed to another, without being able to decide which breed to select, enquiring which is best, etc., etc.; but just show them a pen of Hamburgs, no matter of which variety, and they become Fanciers instantly. Hamburgs they will have at any cost. As a generally useful Fowl they are second to none, as, under favourable conditions, each hen will lay from 200 to 220 eggs per annum, surpassing that model layer, the Leghorn. I must candidly admit that the eggs laid are not as large as most other varieties, generally running 7 to 9 eggs to the pound, but, on the other hand, are as large as many *modern breeds* twice their size, and which consume more food in a week than a Hamburg would in a month. However, if treated properly, I am of opinion that, for actual weight of eggs, or number laid during the *year*, they are far in advance of any other breeds of Poultry. There is, of course, a wide difference in the laying capabilities of different strains of Hamburgs, but this is not entirely the fault of the breed, the Fancy points being fostered by many breeders, to the detriment of the laying qualities. Hamburg pullets are generally seven or eight months old before they lay, rarely laying before they are six months old, although a statement was made by a Fancier that he had a Golden-pencilled pullet laying at nine weeks old. I would not doubt his word for a moment, but, as he admitted that he kept canaries at the same time, I fancy that the canaries and Hamburgs got slightly mixed. Hamburgs are a rather small fowl, cocks averaging about 5½ lbs., hens about 4 lbs., but I have had Silver and Gold Spangles, also Blacks, which weighed: cocks 7 lbs., hens, 5½ lbs., which show that, by careful study in mating and breeding, the size could be greatly increased. They are excellent eating, the flesh being white and tender, and similar to the Partridge in flavour, and I have frequently heard the remark passed by competent authorities that they would rather have a Hamburg on the table than a fowl nearly as large as a turkey. They are also very hardy, living to a great age if cared for properly. It is all moonshine to state that it is compulsory to allow Hamburgs free range, and that they will not do well in confinement. I have kept them in both countries (Great Britain and Australia), under both circumstances, and have found no breed of Poultry that will stand confinement better. I have Hamburgs in all varieties up to 10 years of age, which have been bred and reared in confinement, and they look better and more sprightly than many birds which have a free range. I had one Silver-spangled hen ten years old, the winner of numerous first prizes, which laid as well up to the time of her death as when she was in her second year. My father, in England, had a pair over 20 years old. He bred from them at this age, and they were kept in confinement; in fact, free range is not so much required as care and attention in their feeding and management. I keep my birds (through force of circumstances) in close confinement, and visitors often express surprise at their splendid condition; in fact, they always look the picture of health and contentment. I keep their houses clean, and feed on the best food, such as wheat, barley, pollard, plenty of shell grit, etc., and avoid tonics or medicine of any



Silver-Spangled Hamburgs.

Bred by and the property of Mr. S. Harkness, Jamond Poultry Farm, Riverstone, N.S.W.

HEN.

Winner of 1st N.S.W. P.P.C. and D. Show 1896
 1st N.S.W. P.P.C. and D. Show 1897
 And numerous other 1st prizes.

COCK.

Winner of N.S.W. P.P.C. and D. Soc. 1892
 And numerous other 1st prizes.

description unless absolutely necessary, and if one is sick I treat it the same as one would an infant. However, I have had but one death of an adult bird in the past two years. I dig up the run for the chickens every year, and sow barley, together with rye grass, clover or lucerne; this answers a double purpose, *viz.*, cleansing the ground, and providing abundance of green food for both adults and chicks, which both devour greedily when cut up fine like chaff, or a trifle coarser, and have found that they will not eat lettuce when they can get fresh green cut barley. Hamburg eggs are, as a rule, very fertile, hatch out well, and the chickens are very hardy if not pampered or over-fed. I find that dry feed suits them best, and I never give them sloppy food; crushed wheat suits them very well for the first few weeks, afterwards whole wheat. The eggs do not hatch well in incubators, but if successfully hatched they are easily reared in a suitable foster-mother. I use hens for incubation, and keep the hens penned in a cockerel's house the first week, after which I place hen and chickens in a coop, allowing the chickens to run about; a box, with laths or wire in front, answers the purpose. This should have a sliding door at back or side to allow of attending to the hen, removing the coop to fresh ground daily, feeding the chickens sparingly early and late. By the way, I am not an early riser, so it would always be late were it not that I leave a feed ready for them the night previously, so that they can get their first meal before I am up. I leave the chickens and hen in the coop all night, and for that reason prefer a wooden bottom to the coop to keep them from the damp ground at night.

"There is a great improvement in the Hamburgs as shown in Australia compared with those exhibited 12 years back, thanks to a few enthusiastic admirers who have spent time and money towards this end. Among these may be mentioned Messrs. J. E. Scantlebury, Thos. Croudace, J. McIntosh, W. H. Webb, C. Brown and many others. I well remember attending one of our big shows some years since, when a certain judge (a self-constituted authority on Hamburgs) was carefully explaining the points of a Silver-pencilled cock, he stating that a Silver-pencilled cock should have a marbled or bronze tail, pencilled well on wing-bars with *dark red or bay*, which, he remarked, he knew was very difficult to produce in Silvers; *black*, in his opinion, was very bad, and by all means should be avoided. But, thank goodness, we have got away from that now, and I have seen a few specimens in the Colonies quite equal to those exhibited in England.

"I now proceed to give a description of the varieties, and the standards for judging. I prefer to breed my exhibition birds from cockerel and pullet breeding-pens respectively, but will also give my readers an idea how they can produce fair specimens of either sex from the one pen.

SILVER-SPANGLES.

"In starting to breed Silver-spangles, or, in fact, any of the varieties, it is almost useless purchasing birds without knowing their pedigree, as an inferior bird from a good strain is of far higher value for breeding than one much better in appearance carelessly or loosely bred, so that in starting, a breeder of the variety should be approached, and his recommendation followed, which will, in the end, prove the best course.

"To breed Silver-spangled cockerels, the first plan is to select a bird with a neat, close-fitting comb, nice and full in front, and tapering to the back with plenty of work, or points, and a good, well-carried spike or leader behind; a perfectly red face, white *round* ear-lobes, free as possible from tinge of red, fairly thick and as smooth as possible, with wattles as free from wrinkles as can be procured; the plumage from head to tail pure white in the ground colour; neck hackle, ticked with black evenly from top to bottom; the back and saddle feathers white, with a black elongated diamond-shaped spangle on the tip, and extending up the feather about one inch; the feathers covering the wing-bow and shoulders, narrow and tapering, being marked like a dagger in shape; the wing-bars should be well spangled, quite separate from each other, and spreading out towards the bottom of the wing, the secondaries pure white; the steppings or spangling on the ends of the wings should be clear and distinct; the whole of the breast, thighs and under-parts should be well covered with solid spangling, the whole ground colour setting the spangles off to great advantage; the true tail, side-coverts, and sickles should be pure white, with a well-defined spangle on the tip of each feather. A bird such as described will be the description of cock to head the breeding pen

to produce exhibition cockerels. The hens to match him will not require to be show specimens, but should be good in combs, dark in hackles, good ear-lobes, distinct wing-bars, and with *pure white* ground colour and *pure white* tails, well spangled at the tips of the feathers. From this mating the best cockerel should be selected and mated with his mother, the pullets being mated with their father, the produce from these two

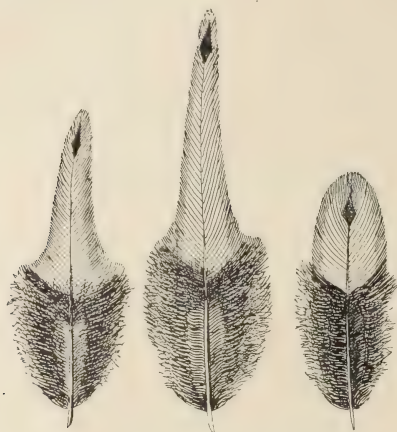


FIG. 79.—Feathers of full-feathered Silver-Spangled Hamburg Cock.

matings being again mated with their parents; then, again, the produce from these matings, cockerel from one and pullet from the other, ought to produce something high-class indeed in cockerels, the pullets so bred being of the greatest value for cock-breeding.



FIG. 80.—Feathers of Hen-feathered Silver-Spangled Hamburg Cock.

“To breed exhibition Silver-spangled pullets, quite a different stamp of cock will be required to head the pen. This bird should be hen-feathered, *i.e.*, exactly like a show hen in plumage, without sickles. Mating him with two or three hens which are good in comb and lobes, boldly and evenly spangled throughout, the spangles being round and large, not crescent-shaped, or of such a size that they overlap one another; in fact,

the ground colour should show between each spangle, though this is very rarely seen. The colour of the spangles on the hen is of great importance; these should be a very rich satiny green-black, having a raised or embossed appearance; the ground colour a pure silvery-white; the neck hackle well ticked from head to points; back well and evenly spangled; wing bars, wing-bows and shoulder coverts all boldly and evenly spangled; the secondaries pure white, with a distinct spangle on the end of each feather; breast, thighs and under-parts well spangled; tail pure white, with a clearly-defined spangle on the end of each feather. This description of hen, if mated to a cock as described, will produce ideal show pullets, if the same system is followed as that laid down for cockerel breeding. To produce cockerels and pullets from the same pen should, however, be the aim of all Fanciers, and this can be done by careful selection of the breeding stock, choosing a cock as described for cockerel-breeding, placing with him a couple of the hens used for cock breeding, and a couple of hens bred from the hen-feathered cock or pullet strain. By this means there are certain to be a fair proportion of both sexes fit for exhibition.

GOLDEN SPANGLES.

“Unlike the Silver Spangles, I find that as good results as wished may be obtained in breeding both cockerels and pullets from the one pen, if the stock birds are properly mated. A Golden-Spangled cock of the following description should be procured to head the pen. The comb should be neat, close-fitting, full in front, tapering to the back, with plenty of work or points, and a good, well-carried spike or leader behind

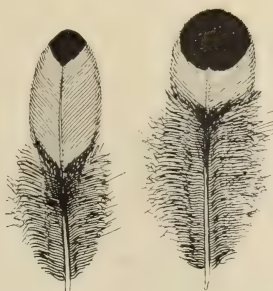


FIG. 81.—Feathers of Silver-Spangled Hamburg Hen.

a perfectly red face; white round ear-lobes, fairly thick and smooth, with wattles as free from wrinkles as possible; the neck hackle, a rich golden bay, each feather striped down the centre with rich deep black; the back, shoulder coverts, and wing-bow, a deeper colour, each feather being tipped at the end with a rich green black spot, these spots becoming longer in shape down the back; the saddle feathers are marked with a black, elongated, diamond-shaped spangle on the tip, and extending up the feather about one inch; the feathers on shoulder coverts and wing-bow, narrow and tapering, with dagger-shaped spots on each end; the wing-bars well spangled, the whole of the ground colour of the breast, thighs, and under-parts being a bright golden bay, well covered with solid spangling, the ground colour showing between; the wing secondaries should be a rich golden bay, with a black spangle on the tip of each feather; the tail, full and flowing, and of the greenest-black colour possible. The hens to match a bird as described should be of one uniform rich golden bay ground colour throughout, with the exception of the tail, which is black, the neck hackles being striped evenly with glossy green-black. The breast, thighs, and under-parts should have each feather marked with a bold, solid spangle at the end; the back, shoulder coverts, wing-bow, saddle and tail coverts being especially well spangled (though on the latter this is rarely seen, it having more of a laced appearance), the wing-bars being clearly defined by two striking and regular lines of spangling; the wing secondaries, bright golden bay, with a green-black spangle at the end of each feather. Hens of this description, mated

with a cock good in Show points, will throw birds exceptionally true to feather—both cockerels and pullets. I consider that the Golden-Spangled hens are quite equal to any of the other varieties of the Hamburg tribe as high-class layers, and the eggs are, as a rule, larger, though I am aware that this is opposite to other writers' statements.

SILVER PENCILS.

"In breeding this variety it is compulsory to make up separate breeding pens, to produce both sexes fit for exhibition. To breed cockerels, a cock must be procured that is pure white in ground colour, not having a yellowish tinge, as this would be fatal to success in breeding from him. I would also like to see a little more pencilling allowed on wings and thighs than is acknowledged by the Standard; if this were done it would be much easier to breed the both sexes from one pen of birds. The tail should be a solid black, the sickles and tail coverts also a sound black, laced all round from fluff to point, each side with a narrow and distinct stripe of white. The majority of cocks fail in this distinct marking. A bird of this description, if of good shape and style, will produce cockerels like himself if mated with hens much too white, or wanting in pencilling, for Show purposes. These are called cock-breeding hens; and, if they have neat, close-fitting combs, round and smooth ear-lobes, it will not matter if they are almost white in plumage. One thing must

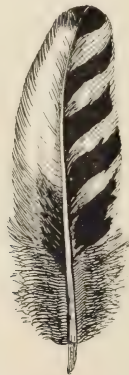
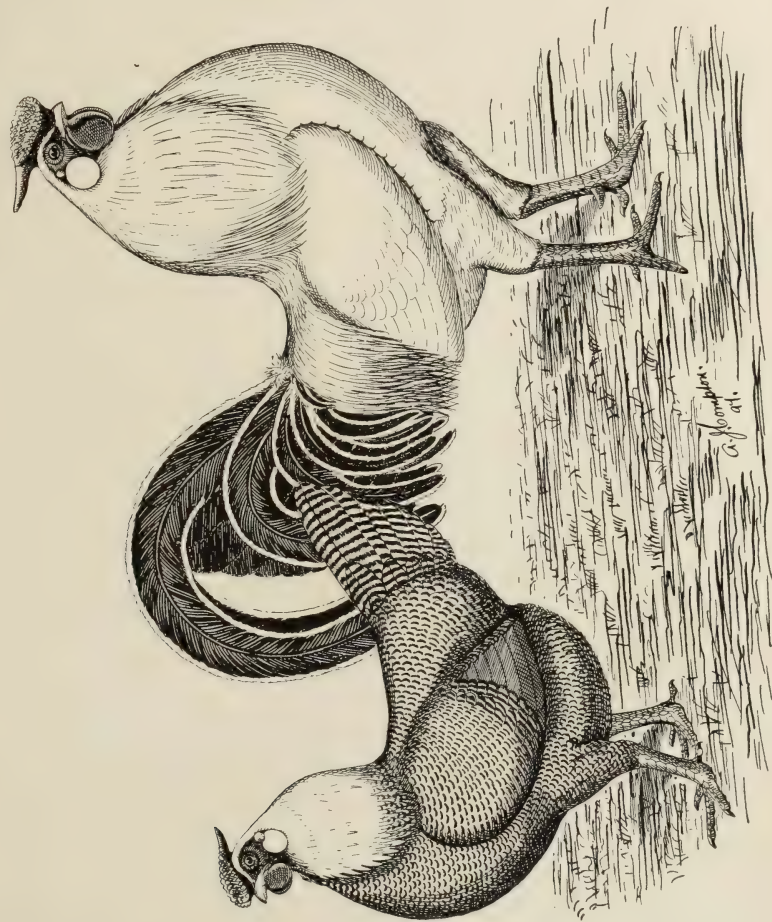


FIG. 82.—Secondary Wing Feather of Silver-Pencilled Hamburg Cock.

be strictly avoided in purchasing cock-breeding hens, *i.e.*, see that they do not show any yellowish tinge in the ground colour.

"In breeding pullets of this variety, again, a different stamp of cock will be required, the best class of bird for this purpose being a hen-feathered cock, the hens to match being as close as possible to the ideal Show hen, *i.e.*, with a clear silvery-white neck hackle; the breast, thighs, back, saddle shoulders, wing-bows, wing coverts, tail coverts, and top feathers of tail, ground colour clear silvery white, distinctly and evenly pencilled straight across with fine parallel bars of a deep greenish colour; the true tail feathers barred across on lower edge, black on upper, the distance between each bar being the same width as the bar itself; the secondary feathers barred straight across on lower edge, and black on the upper; the flight feathers pencilled as much as possible, but only slightly pencilled on the outer or lower edge.

"The pullets will come very uniform from this system of mating, the cockerels being again useful for breeding pullets if mated with Standard-marked hens. The only difficulty likely to arise in using the hen-feathered cocks is the risk of infertile eggs. Pullets of this variety always look better just before they lay



Silver Pencilled Hamburgs.

The property of Mr. S. Harkness, Jesmond Poultry Farm, Riverstone, N.S.W.
HEN.—Winner of 1st N.S.W. P.P.C. and Dog Show, 1895-96-97.
COCK.—Winner of 1st N.S.W. P.P.C. and D. Soc., 1895-96-97, and 1st and Special for best Hamburg, Poultry Club of N.S.W., 1897.

than ever afterwards, the marking or pencilling becoming wider and coarser with age. I have seen as good cocks exhibited twenty years back as now, but the pullets have wonderfully improved.

GOLDEN PENCILS.

"The mating and breeding of Golden Pencils is exactly on the same lines as given for the Silver Pencils. The ground colour of a Gold Pencil cock should be a rich bright bay from the top of the head to root of tail. Yellow hackles and breasts inclined to be clay-coloured should be carefully avoided. The edging around the sickles and tail coverts are similar to the body colour, this lacing being about one-quarter of an inch in width. The centres of the sickle feathers and tail coverts should be a sound glossy black, the Show hen having a bright gold neck hackle, the ground colour being a bright red bay, marked exactly the same as the Show Silver hen. Golden-pencilled birds should be kept out of the sun as much as possible, as the sun gives them a pale, washed-out appearance.

BLACK HAMBURGS.

"This variety, when seen in anything approaching perfection, combine an elegance of carriage and symmetry of form unapproached by any breed of Domestic Poultry. The comb, lobes, wattles, etc., are

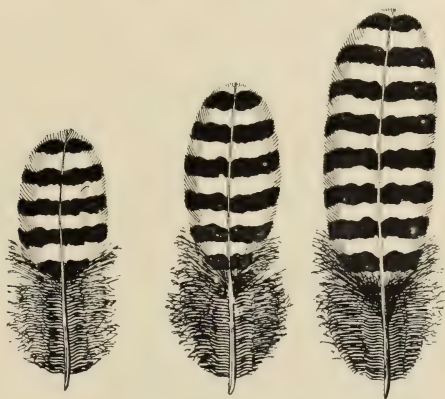


FIG. 83.—Feathers of Silver-Pencilled Hamburg Hen.

exactly similar to the Spangled varieties; but the body is one whole uniform rich satiny green-black. The greener the better, the hens frequently possessing this important characteristic in a more marked degree than the cocks, and when viewed in a good light, or with the sun shining upon them, the sheen of the feather is marvellous. It is within the past twenty years that the breed has been brought to its now present high state of perfection. The ear-lobe is a little larger in this variety than in the others, and looks more striking set off with such coral-like combs and faces, and brilliant green-black plumage.

"For breeding Exhibition cockerels a cock should be chosen good in head points, comb, lobes, etc.; mated with hens also good in these points, taking care that no red feathers are in hackle and saddle of the cock. But, on the other hand, for breeding pullets it will not matter if the cock has a few red feathers in hackle and saddle, if, in addition, he is possessed of brilliant greenish sheen throughout, and especially on wing coverts and secondaries. The hen to mate with a bird of this description need not possess brilliant green body colour, the cock giving all this desired quality. This variety is one of the most useful, beautiful, and profitable breeds of Fowl in the world, and the hens can lay claim to be the best layers of all Poultry, and they are high-class Table Fowls.

"Hamburgs," with the exception of Silver-Spangled and Silver Pencils, require very little attention to prepare them for Exhibition. The Silver must be thoroughly washed if a prize is looked for. A good sponging of the comb, face, lobes, legs, and feet is about all required for the other varieties. Feeding the birds for colour plays a prominent part in the success or otherwise of Hamburgs for showing, and to this end breeders of the different varieties are taxed to the utmost to discover something that will assist in placing their birds' condition on a higher plane than those of their competitors."

THE HAMBURG CLUB'S STANDARD OF PERFECTION.

Definition of Terms.—*Spangling* is the word used to describe the "marking of gold and silver spangled Hamburgs generally, but refers more particularly to the body-marking of Hens, and the breast-markings of Cocks"—"Spangles" being the name given to the round spots on the ends of the feathers, and which vary in size from a threepenny-bit to a shilling, commencing small at the throat and increasing in size towards the fluff. Spangles are a mixture of black and green, the greener the better. *Ticking* is the term used to describe the dagger-shaped marking at the ends of the feathers forming the neck and saddle hackles of Silver-spangled cocks, and which should never exceed an inch and a half in length. Marking which exceeds one inch and a half in length becomes a stripe. *Steppings* is the name given to the five or six spangles on the secondary flight feathers, each of which being a trifle shorter than the other, makes the spangles appear just above each other like a staircase. *Pencilling* is the name given to the "marking" on Gold or Silver-pencilled hens. Every feather (except the neck hackles) should be pencilled across with narrow lines, the colour of which is a mixture of black and green, the greener the better. *Lacing* refers to the gold or silver edging all round the black sickle feathers and tail coverts of pencilled cocks.

GENERAL CHARACTERISTICS.

Beak, short and small; *Comb*.—*Cock*, square in front, gradually tapering towards the back, and ending with a long spike, pointing in a straight line with the surface of the comb; the comb should be firmly and evenly set on the head, the top level, and covered with points. *Hen*.—The same, only very much smaller. *Head*, short and smart; *Face*, smooth, colour, red; *Eyes*, full, colour, red; *Ear-lobes*, white, smooth, and as round as possible—cocks, as large as a half-penny, hens, as large as a sixpence; *Wattles*, hen, well rounded, and free from wrinkles; *Plumage*, very profuse; *Neck*, medium length, and slightly arched; *Hackle*, very full, and a good length, coming well over the shoulders; *Breast*, prominent and round; *Back*, medium length; *Wings*, large and neatly tucked up; *Tail*, a good length, carried at an angle of 45 degrees, sickles and secondaries broad, plentiful and sweeping; *Thighs*, slender, short, and neat; *Legs*, small-boned, taper, and medium length, toes slender and well spread—Spangles and Pencils, a leaden blue; Blacks, a leaden black; *Size*: Pencilled cocks should weigh about 4½ lbs.; Spangled and Black cocks, a pound heavier. Pencilled hens should weigh about 3½ lbs.; Spangled and Black, a pound heavier. *Carriage*: Head erect, chest well out, and the whole appearance lively and graceful.

SILVER-SPANGLED COCK.—*Hackle*, a silvery white, each feather tipped with small black dagger-shaped tips. *Breast and Thighs*, white, each feather tipped at the end with a round spot or spangle (the greener the better), small near the throat, and increasing in size towards the thighs, but never so large as to overlap. *Shoulders and Wing-bows*, white, with narrow black dagger-shaped tips at the end of each feather, increasing in size until they merge into what is called the third bar; *Wing-bars*, two in number, and sometimes three, formed of large beetle-green spangles running parallel across each wing with a gentle curve, each bar distinct and separate; *Secondary Flight Feathers*, white, tipped with large, round beetle-green spangles, which form what are called "steppings;" *Back and Saddle*, white, with small black dagger-shaped tips at the end of each feather; *Tail*, white, both inside and outside, ending with bold, half-moon shaped spangles; *Sickle Feathers*, white, with large, round, beetle-green spangles at each end of the feather; *Tail Coverts*, the same, but the spangles a trifle smaller.

SILVER-SPANGLED HEN.—*Head*, black and white, mixed; *Neck Hackle*, a silvery white, ticked from the top of the head with dagger-shaped tips, which generally increase in width until they merge into rich green spangles at the bottom; *Breast, Thighs, Back, Saddle, Shoulders, and Wing-bows*, every feather white



Black Hamburgs.

Bred by and the property of Mr. S. Harkness, Jesmond Poultry Farm, Riverstone, N.S.W.
Winners of 1st prizes at Balmain, United Fanciers, and Poultry Club's Record Shows.

tipped with lustrous beetle-green spangles, which should be as round as possible, but never so large as to overlap—the spangling should commence high up the throat; *Wing-bars*, two in number, and sometimes three, made up of large beetle-green spangles running parallel across the wings, with a gentle curve, each bar distinct and separate; *Secondary Flight Feathers*, white, tipped with large, round, beetle-green spangles, which form what are called “steppings;” *Tail*, each feather a pure white with a half-moon spangle at the end; *Tail Coverts*, should reach half way up the true tail feathers, and form a beautiful row across the tail (each side) of perfectly round spangles.

GOLD-SPANGLED COCK.—*Hackle*, rich golden bay, each feather marked down the centre with a stripe of beetle-green; *Breast and Thighs*, rich golden bay, each feather tipped at the end with a round spot or spangle (the greener the better), small near the throat, and increasing in size towards the thighs, but never so large as to overlap; *Shoulder and Wing-bows*, dark bay, almost maroon, with dagger-shaped tips at the end of each feather; *Wing-bars*, two in number, formed of large beetle-green spangles, running parallel across each wing with a gentle curve, each bar distinct and separate; *Secondary Flight Feathers*, golden bay, tipped with large beetle-green spangles, which form what are called “steppings;” *Back and Saddle*, golden bay, each feather striped down the centre with green; *Tail, Sickle Feathers, and Tail Coverts*, these are all a rich black; if they are tinged with green, so much the better.

GOLD-SPANGLED HEN.—*Head*, black and bay mixed; *Neck Hackle*, a rich bay, each feather marked down the centre with a stripe of beetle-green; *Breast, Thighs, Back, Saddle, Shoulders, and Wing-bows*, every feather a beautiful bay, tipped with lustrous beetle-green spangles, which should be as round as possible, and never so large as to overlap. *Wing-bars*, two in number, sometimes three, made up of large beetle-green spangles running parallel across the wing with a gentle curve, each bar distinct and separate; *Secondary Flight Feathers*, bay, tipped with large, round beetle-green spangles, which form what are called “steppings;” *Tail*, black, tinged with green; *Tail Coverts* should be spangled, though at present the spangling is so large it only shows a light lacing of gold round the feathers.

SILVER-PENCILLED COCK.—*Neck Hackle, Breast, Thighs, and Fluff, Back, Saddle, Shoulders, and Wing-bows*, a silvery white; *Wing Coverts*, the bottom web or visible part of each feather is white, the top web, or invisible part of each feather when wing is closed, is closely pencilled—a slight and indistinct bar of black is admissible; *Secondary Flight Feathers*, as white as possible, though the top web, or invisible part of each feather is generally black, or coarsely pencilled; *Tail, black; Sickle Feathers and Tail Coverts*, a solid, rich black, laced all round with a narrow strip of white.

SILVER-PENCILLED HEN.—*Neck Hackle*, silvery white; *Breast, Thighs, Back, Saddle, Shoulders, Wing Bows, Wing Coverts, Tail, and Tail Coverts*, silvery white—each feather distinctly and evenly pencilled straight across with fine parallel lines of a rich beetle-green colour. The pencilling and the intervening ground colours should be the same width; *Secondary Flight Feathers*, these should be pencilled as much as possible, but the marking is naturally a trifle coarse.

GOLD-PENCILLED COCK.—*Neck Hackle, Breast, Thighs and Fluff, Back, Saddle, Shoulders and Wing-bows*, a bright red bay; *Wing Coverts*, the bottom web, or visible part of each feather, is a bright red bay. The top web, or invisible part of each feather, is coarsely pencilled, a slight and indistinct bar of black is admissible; *Secondary Flight Feathers*, a bright red bay, though the top web, or invisible part of the feather, is generally black or coarsely pencilled; *Tail, black; Sickle Feathers and Tail Coverts*, a solid rich black, laced all round with a narrow strip of gold.

GOLD-PENCILLED HEN.—*Neck Hackle*, a bright gold; *Breast, Thighs, Back, Saddle, Shoulders, Wing-bows, Wing Coverts, Tail, and Tail Coverts*, a bright red bay, each feather distinctly and evenly pencilled straight across with fine parallel lines of a rich beetle-green colour, the pencilling and the intervening colour should be the same width; *Secondary Flight Feathers*, these should be pencilled as much as possible, but the marking is naturally a trifle coarse.

BLACK COCK AND HEN.—*Plumage*, a beautiful soft green colour from head to tail, and especially on the sickle feathers and tail coverts. Any approach to *bronze* or *purple* tinge should be avoided.

SCHEDULE FOR JUDGING HAMBURGS.

(A Bird perfect in shape, style, size, markings and colour, and condition, to count 100 points).

SCALE OF POINTS.

SILVER-SPANGLED COCK.					SILVER-SPANGLED HEN.				
Comb	...	...	...	10	Comb	...	...	...	10
Face	...	...	...	5	Face	...	...	...	5
Ear-lobe	...	...	...	5	Ear-lobe	...	...	...	5
Ground colour	...	...	...	10	Colour	...	...	...	15
Size, style, and condition	...	...	...	10	Size, style, and condition	...	...	...	10
MARKING.					MARKING.				
Neck hackle	...	...	...	10	Neck hackle	...	...	...	10
Back and saddle	...	...	...	10	Back and saddle	...	...	...	10
Breast and thighs	...	...	...	10	Breast, thighs, and fluff	...	...	...	10
Wing: Bow, bars, and steppings	...	...	...	15	Wing: Bow, bars, and steppings	...	...	...	15
Tail	...	...	...	15	Tail	...	...	...	10
100					100				
GOLD-SPANGLED COCK.					GOLD-SPANGLED HEN.				
Comb	...	...	...	10	Comb	...	...	...	10
Face	...	...	...	5	Face	...	...	...	5
Ear-lobe	...	...	...	10	Ear-lobe	...	...	...	10
Ground colour	...	...	...	10	Colour	...	...	...	15
Size, style, and condition	...	...	...	10	Size, style, and condition	...	...	...	10
MARKING.					MARKING.				
Neck hackle	...	...	...	10	Neck hackle	...	...	...	10
Back and saddle	...	...	...	10	Back and saddle	...	...	...	10
Breast and thighs	...	...	...	15	Breast, thighs, and fluff	...	...	...	10
Wing: Bow, bars, and steppings	...	...	...	15	Wing: Bow, bars, and steppings	...	...	...	15
Tail	...	...	...	5	Tail...	...	...	...	5
100					100				
GOLD OR SILVER-PENCILLED COCK.					GOLD OR SILVER-PENCILLED HEN.				
Comb	...	...	...	10	Comb	...	...	...	10
Face	...	...	...	5	Face	...	...	...	5
Ear-lobe	...	...	...	10	Ear-lobe	...	...	...	10
Ground colour	...	...	...	30	Colour	...	...	...	20
Size, style, and condition	...	...	...	15	Size, style, and condition	...	...	...	10
Tail	...	...	...	30	MARKING.				
100					Breast and thighs	...	...	...	10
					Back and saddle	...	...	...	10
					Wing	...	...	...	10
					Tail	...	...	...	15
					100				

Black Cock or Hen:—Comb, 15; Face, 10; Ear-lobes, 15; Plumage, 35; Legs, 10; Size, Style, and Condition, 15; = 100.

DISQUALIFICATIONS.

Single comb; red ear-lobes; squirrel, or wry tail; crooked back; trimmed comb or ear-lobes; painted or coloured face or ear-lobes; stained or dyed plumage; stained or dyed legs; clipped feathers; or other fraudulent malpractices.

CHAPTER XXXIX.

POLISH.

THE principal characteristic traits of the Polish Fowl are the formation of the head feathers, called the crest, the beard, and whiskers, and the peculiar craniological formation of the skull, even the chickens when first hatched presenting these distinctive features in a prominent degree, and the more developed this formation appears in the first stages the better crested will the birds be in after life. The three varieties of the Polish Fowl, commonly known and seen at Exhibitions, are the Golden-Spangled, Silver-Spangled, and White-Crested Black, though there are many sub-varieties of these—some with and some without the beard and whiskers. Of these the chief are the Buff, the White, the Black, the Black-Crested White, the Cuckoo, and the Blue or Grey.

There is no great interest displayed by Fanciers in Australia in this unique and ornamental variety of Poultry, the classes provided at our leading Shows being poorly patronised. This is a matter for regret, as all the varieties of Polish are remarkably handsome and attractive in appearance, and the hens can be classed as good layers, rarely developing the incubating instinct.

Taking the *Silver-Spangled* first : The cock is of moderate size, of smart, attractive shape ; the head and neck thrown back, the latter being well curved ; the breast, very prominent ; the tail, also, being carried full, fairly upright, and well expanded ; the crest being composed of long, fine feathers, which should be as abundant as possible. A full crest being most desirable, the shape of the crest is all-important. It should rise well in front, and fall down the side and back without break or division, and the larger the crest, if well formed, the more it is valued as a Fancy Point. The crest feathers should be composed of black at the roots, white in the centre, and tipped with black at the ends, though the crest loses this distinctive marking with age, often becoming nearly white. The beard and muff should be full, and dark in colour, the neck hackles being very abundant, each feather from the head downwards being tipped with black. This frequently changes to a much lighter shade with age. The breast should be accurately spangled with black, in the shape of a half-moon, the black running round the edge of each feather. The back wing-bows, shoulder coverts, and saddle hackles all white, tipped with black, the edges of the wing coverts forming the wing-bars heavily laced all round the feather, forming two bars across the wing, the secondary quill feathers, also, being laced in the same manner ; the true tail feathers and sickles, white or grey, with a black moon, or spot, at the end of each feather, the side or secondary sickles and tail coverts also being laced with black ; the legs, a slaty blue ; beak, horn colour ; eyes and face, bright red ; ear-lobes, generally white.

The hen should have as full and globular a crest as possible ; in fact, the nearest approach to a perfect ball, without division, the better, except where it sets upon the beak ; the colour of the crest feathers before the first adult moult being black at the base and up the centre, *and edged with white* ; but after the first moult this is entirely reversed, the feathers that are black at the base and middle, turning white, with a *black edge right round*. The crest, as a rule, becomes white after the first year, many of the feathers becoming clear white. Like the cock, the beard should be full, and mottled with black and white, the neck hackle white, and well laced with black ; the rest of the body feathers, including tail, white, laced all round with black, the black being heaviest at the tips of the feather, which on this part should resemble a half-moon. At one time the breed was heavily spangled, after the Spangled Hamburg style of marking, but is now laced, which is a decided improvement.

Golden-Spangled Polish differ from the Silver variety in the ground colour alone, the marking being identical in every respect with the Silver. The top colour of the cock, excepting the tail, is of a bright red

tinge, the breast, tail, and under-parts being more of a reddish-brown. The ground colour of the hen is a golden bay, but as long as this is sound in colour, and the lacing clear and distinct as in the Silvers, it will be correct.

To breed both Silvers and Goldens the same rule may be followed; and as crest is of such importance in either, birds excelling in this point should be chosen to perpetuate the breed, a bird faulty, or wanting crest being certain to pass on the fault to the progeny. For instance, a bird may be almost perfect in lacing, but deficient in crest, and exhibiting signs of having a comb. A bird of this description will produce progeny even worse than himself in these undesirable points, so should be carefully avoided, as a comb in these varieties is an almost fatal defect, and shows a hereditary inclination to throw back to the original stock, which possessed a two-horned comb. It is always best, as in the majority of other breeds, to mate up birds a shade darker or heavier marked together, as the progeny has a natural tendency to come a trifle lighter each generation, until in a few years, if this is not counteracted as described, they will become practically worthless. Again, unlike most breeds, no difficulty will be experienced in breeding both sexes from the one pen of birds if the parent birds have no fatal blemishes—such as combs, crooked breasts, backs, or beaks.

White-Crested Black Polish are, probably, the most striking of the three principal varieties exhibited, and, coupled with such a neat, well-rounded, and compact appearance, are universally admired. Both sexes are similar in all respects, save the feathers in crest, saddle, and sickles of the cock, the hen's crest being more globular in shape. The beak is a dark horn colour; eyes, face, and wattles, red; ear-lobes, white; crest, white, with a few black feathers in the front; the rest of the plumage, a deep, rich black; the legs, a very dark slate colour, approaching black. Both sexes can be bred from one pen with success, the important consideration being that the cock *must* be good in crest to expect fair results. With the hen this will not matter so much; but, naturally, if both are good in this point, even better results may be anticipated.

As previously remarked, there are other sub-varieties of the Polish race, the chief of these being the Buff, of which we have seen some beautiful specimens. The ground colour of this variety is of a light golden colour, the spangling and lacing to the feather being white, instead of black, as in the Silver and Golden varieties. The richer in tone the ground colour is in this variety the more striking they appear.

White Polish are the largest of the Polish race, but are now nearly extinct. These have a full beard, and, in all probability, it was from this colour and the Golden-Spangled crossed that the Buffs were produced.

The Blacks are almost, if not quite, extinct, and run much smaller than the Whites or other varieties, and certainly do not look nearly so attractive as the White-Crested Blacks.

The Cuckoos are evidently an off-shoot of the other varieties crossed, no difficulty being experienced in producing birds of this marking.

The Blues or Greys are similar to the Andalusian in colour, and are evidently the product of a cross, again no difficulty being experienced in breeding birds of this colour.

The whole of the Polish varieties are excellent layers, and the meat is of the highest quality; and one merit they possess, in addition to their ornamental appearance, and tame and confiding disposition, is that they will thrive as well as any breed in close confinement, providing that the house and run is completely protected from the weather. They are, in fact, a breed of Poultry specially adapted to Lady Fanciers, and, kept under proper conditions and surroundings, will give as good a return as most Poultry. Polish chickens *MUST* be hatched early in the season. No possibility of them turning out well can be expected if late hatched, the drain upon the system caused by the growth of the feather being more than they can stand if hatched late in the season, the full development of the crest never being attained by weakly birds, the critical time in their lives being from four to eight weeks old, and at this time they require a little extra care and attention, the adult birds being, as a rule, very hardy. Polish chickens are, as a rule, very timid, and should be accustomed to being handled from an early age (as the crest interferes with their sight when approached from the back), thus frequently preventing a serious shock to them, which will often prove fatal.



Golden-Laced Polish.

Late the property of Mr. J. C. P. Creese.

Winner of 1st Kinnia, 1894-95; 1st Stockholm; and many other prizes.

One vice the Polish Fowls, in common with all crested varieties, are prone to—that is, feather-eating—and at moulting time the cocks should ALWAYS be removed from the hens, the fleshy shafts of the feathers, when partly grown, being such a dainty morsel, that they cannot resist the temptation, the cocks often standing still while the hens literally pluck them alive; and, strange to say, the cocks seem to have a decided liking for the performance. This, again, is often caused by the unsuitable fountains from which the birds drink. The crest coming in contact with the water, encourages the hen to peck at it, with the result that the habit is contracted, and will be found one of the most difficult to eradicate.

As the crest feathers grow on the chickens, the sheath encasing the feather should be removed, so as to allow the feather to expand properly, which often it will not do, as the bird cannot reach the head feathers, the same as the other feathers of the body.

The following remarks on the Golden-Laced Variety are kindly supplied by Mr. J. C. P. Creese, of James Street, Leichhardt, N.S.W. Mr. Creese has had some years' experience with the variety as a breeder and successful exhibitor, and writes:—

“The Golden-Laced Polish are a purely ornamental variety of Poultry, though their laying capabilities are by no means to be overlooked, as I have found the hens fairly prolific, they generally commencing to lay about the latter part of July, and continuing, with slight intermissions, until the following April, averaging about 150 eggs each per annum, and these of fair size. The hens never exhibit the slightest inclination to incubate, so that it is compulsory to keep another variety to hatch and brood the chickens. The cocks are very vigorous up to an advanced age, and a good bird need not be discarded even up to five or six years old, but, of course, cannot attend to as many hens as a younger bird. With a cock of this variety I would have no hesitation in running from ten to twelve hens, rarely, even with this number, finding an infertile egg. When the chickens are hatched they should be kept in a very dry coop or house, as wet is almost certain to prove fatal to them. The future quality of the chickens can be determined at a very early age as regards crest and muffling, as I have found that the larger the protuberance on the head and fullness of muffling around the throat, the better the bird will be in these respects when arrived at maturity. The plumage, however, is one of the disappointments Fanciers have to grin and bear, as the best stock will not breed absolutely true to colour. From one pen, consisting of a sound-coloured cock and five fairly well-marked hens, I have bred 40 chickens in a season, ranging in colour from deep black to the lightest buff. The chickens are easily reared until about three months old, providing they are kept perfectly dry; after that age they are liable to drop off without any apparent cause, just at a time when they look most promising, but if they reach the age of seven or eight months they are as hardy as any variety I know. There is one thing I would like to acquaint beginners, in breeding this handsome and attractive variety, to guard against—that is, to examine closely the crests of all young birds for lice. These torments get in the crest, muffling, and back of the neck, in positions where the bird cannot dislodge them, causing untold misery, and finally death. The Golden-Laced Polish are a very timid Fowl, and one should be very careful of approaching them from behind without giving notice of presence, as from the size of the crest, especially in good specimens, their sight at the side and back is more or less obstructed, consequently they are easily frightened; some birds have actually died from fright on being approached suddenly. The breed occupies a very low position in the scale as Table Fowls, but to those desirous of taking up a highly ornamental variety I think there is nothing prettier or more attractive than a good Gold Polish cock, with flowing crest carried jauntily, and marching erect, as if he would say, ‘Now, am I not cock of the walk?’ surrounded by half-a-dozen hens, also strutting about on a well-mown lawn. Even the adult stock should be kept out of the rain, as I think no breed of Fowls look more miserable and unattractive when wet, their bedraggled crests giving them quite a forlorn appearance.

“There is no doubt they could be improved in size, but new blood must be introduced in order to improve them in this respect. There has been but little competition at our Shows with this variety, but occasionally a splendid specimen is exhibited, notably a year or two back, when Mr. Ogg, of Melbourne, exhibited a cock. This bird was the best Gold ever seen here. The chickens should be hatched as early as

possible if size is required, as they are an exceptionally slow-maturing Fowl (though feathering rapidly), taking nearly twelve months to reach maturity. The pullets rarely lay until the following spring. The sexes are difficult to distinguish until they begin to cast their chicken feathers, when the cockerels can be picked out by the appearance of the crests, the feathers being long and narrow, and bright in colour, while the pullets have a small round crest, with a lacing (not spangling) of brilliant greenish-black. After the first adult moult nearly all Gold Polish have *some* white feathers in the back of the crest. This gradually increases as the bird becomes advanced in years; in some instances the crest turns wholly white. This cannot be taken as a sign of impurity of blood, but is certainly no attraction. No doubt, with due care and selection of the breeding stock, this fault can be eradicated. They are a hardy Fowl when fully matured; disease seldom attacks them, but they are very subject to that unsightly eruption in the shanks called scaly legs. They are a very lively, active Fowl, small eaters, good foragers, and bear confinement well."

GENERAL CHARACTERISTICS.

COCK.

Head and Neck.—In general appearance, stately and lively; *Beak*, fair size, well shaped; *Comb*, in White-Crested Blacks very small, the other varieties wanting; *Wattles*, not present in Bearded or Spangled, other varieties long, thin, and pendent; *Ear-lobes*, small; *Crest*, full, round, and large as possible, the feathers composing the crest being like the neck hackles of each sex; *Beard*, in the bearded varieties large and full as possible; *Neck*, fair length, carried erect, and nicely arched, full of hackle feathers; *Body*, general appearance smart and active, widest at shoulder, and narrowing to tail; *Wings*, well carried, fair length; *Breast*, full and prominent; *Legs and Feet*, thighs short; *Shanks*, rather short, smooth and slender; *Toes*, slim and fair length; *Tail*, full sickles, and tail coverts flowing and abundant, carried fairly erect; *Weight*, 5 to 6 lbs.; *General Shape*, slight and trim; *Carriage*, dandified.

HEN.

Crest.—Fuller, closer, and more globular than the cock; *Tail*, well spread, showing markings well, in all other respects the same as the cock, making allowance for difference in sex; *Weight*, 4 to 5 lbs.; *General Shape*, trim and pretty; *Carriage*, vain.

COLOUR OF SILVER-SPANGLED POLISH.

In Both Sexes.—*Eyes*, bright red; *Beak*, dark horn; *Face*, bright red; *Legs*, slaty blue. *Colour of Cock*.—*Crest Feathers*, black at base, white in centre, spotted with black at tips (more or less mingled with white in old birds); *Hackle*, white, spotted with black at tips; *Back*, *Shoulder Coverts*, and *Wing-bows*, white, spotted with black, broader than the hackle and saddle feathers; *Wing Coverts*, white, laced all round with black, the lacing broader at the ends of the feathers, forming two laced bars across the wings; *Secondary Quills*, finely laced all round, the lacing broader at the tips. The outer web is white, the inner web white, with more or less greyish-black intermingled, but lighter than the black lacing; *Primaries*, corresponding to secondaries; *Saddle Hackles*, white tipped with black, and black at the base; *Breast*, white, with a half-moon black spangle at the tip, the edge being laced with black; *Tail and Sickles*, white or grey, spangled with black at the tips of the feathers; *Secondary Sickles and Tail Coverts*, more or less grey in the centre, laced heavily with glossy green-black; *Colour of the Hen's Crest*, black, laced with white the first year, reversed to white laced with black afterwards; *Hackle*, white, laced at the tips with black; *Breast*, white, spangled with half-moon spangle at the tips, running almost into a lacing of the feather; *Remainder of Plumage*, white, laced entirely round every feather with black, even in the secondary quills, the lacing being rather thicker and heavier at the tips of the feathers.

COLOUR OF GOLDEN-SPANGLED POLISH.—Both sexes identical in all respects with the Silver in markings, the ground colour being a golden instead of silver.

COLOUR OF WHITE-CRESTED BLACK POLISH.—In Both Sexes.—*Beak*, black or dark horn colour; *Face*, *Eyes*, and *Wattles*, red; *Ear-lobes*, white; *Crest*, pure white, with a few black feathers in the front

(the fewer the better); *Rest of Plumage*, deep rich black; *Legs*, a very dark slate colour, approaching black.

COLOUR OF BUFF POLISH.—*Ground Colour*, a rich yellow or buff, spangled with white. This breed more nearly approaches the true *spangled* character than the others, the lacing not being so pronounced.

White-Crested Whites, Black-Crested Blacks, Blue or Grey, and Cuckoo Polish, are sufficiently described by the different names. They are, as a rule, bearded; but being rarely exhibited, and, in fact, no encouragement being offered, have little or no place in public estimation.

SCHEDULE FOR JUDGING GOLD AND SILVER SPANGLED POLISH.

(A Bird perfect in shape, carriage, colour, crest, muffling, and in perfect health and condition, to count 100 points).

POINTS TO BE DEDUCTED FOR DEFECTS.

Want of Size in crest	...	...	...	...	...	...	...	...	9
„ „ Fulness in crest	...	...	...	...	...	...	...	...	12
Comb development...	...	...	...	...	...	...	...	...	10
Black breast...	...	...	...	...	...	...	...	...	8
Bad lacing on Wings	...	...	...	...	...	...	...	...	10
„ „ „ Tail	..	...	...	...	...	...	...	...	6
Bad marking on saddle and hackle	...	...	...	...	...	...	...	...	10
Deficient size	...	...	...	...	...	...	...	...	10
Want of Symmetry...	...	...	...	...	...	...	...	...	10
„ „ Condition	...	...	...	...	...	...	...	...	15
									100

SCHEDULE FOR JUDGING WHITE-CRESTED BLACK POLISH.

(A Bird perfect in shape, carriage, colour, crest, and condition, to count 100 points).

POINTS TO BE DEDUCTED FOR DEFECTS.

Want of Size in crest	...	...	...	...	...	...	...	...	8
„ „ Fulness in crest	...	...	...	...	...	...	...	...	14
Too large comb	...	...	...	...	...	...	...	...	10
Red ear-lobes	...	...	...	...	...	...	...	...	4
Too many black feathers in crest	...	...	...	...	...	...	...	...	8
Inferior-coloured white feathers in crest	...	...	...	...	...	...	...	...	6
Want of sheen on plumage	...	...	...	...	...	...	...	...	10
Deficient size	...	...	...	...	...	...	...	...	10
Want of Symmetry	..	...	...	...	...	...	...	...	15
„ „ Condition	...	...	...	...	...	...	...	...	15
									100

DISQUALIFICATIONS.

Distinct two-horned comb, crooked breast, crooked back, wry tail, or any other evident signs of weakness or deformity; presence of foreign-coloured feathers in plumage, amputated comb, plucked crest, or any fraudulent dyeing, dressing, or trimming; legs any colour but blue, bluish-black, or black, which may, however, become paler on account of age.

Unclassed Varieties.

CHAPTER XL.

Anconas.—This is a very old breed, which of late years has been more or less neglected. They resemble Houdans somewhat in plumage, being mottled black and white, the general shape being similar to the Minorca. The comb is single, large, with from five to eight serrations; the ear-lobe, creamy white, the wattles being long and pendent. The legs and feet in good specimens are a bright yellow, but many show a dusky shade over the yellow. They are, in fact, a sub-variety of the Spanish family, and, as a general rule, are non-sitters, though occasionally a hen will develop the instinct. The breed is of a very active, sprightly nature, and the hens, being excellent layers of large white eggs, rarely get too fat. The chickens are very hardy, and the cockerels precocious, maturing very early. Instances have been known in which cockerels crowed at *five* weeks of age, and pullets of this breed have laid at SIXTEEN weeks. One advantage this breed possesses is that they may be relied upon to breed true to feather. The chickens hatch uniformly white and canary colour on breast and under-parts; the top of the head black, with a distinct black stripe running right down the centre of the back. Both chickens and adults stand confinement exceedingly well, are of a quiet disposition, and, if given liberty, require but a small proportion of food, being good foragers. Their great economic claim is based on their laying capabilities, the eggs being of large size, and produced in great numbers, and it is a noted fact that much attention is now being paid them in Great Britain, and this is sure evidence that the claims made on their behalf are not without solid foundation.

Bruges Game.—This breed is better known as the Belgian Fighting Fowl, and possesses some good qualities, being strongly recommended as an excellent variety for crossing with the La Fleche or Dorking. It is highly esteemed for its great fighting capabilities, considered by many competent to offer an opinion to be the best of all for the purpose—strength, size, agility, and great power of endurance, are some of the qualities possessed by Bruges Game. As a Table Fowl it also occupies a high position, carrying an abundance of white meat on a long and deep breast. The wings, neck, back, legs, and tail, are rather long, the body widest at shoulders, tapering towards the tail. They are of various colours, blues, reds, blue and red, blacks and whites; but the colours mostly seen are blues, reds, and blacks, the blues being held in the highest esteem. The cock is remarkable for his strong powerful frame, not, however, as heavy looking as the Malay. The comb is triple, *i.e.*, pea comb, the ear-lobes, wattles, and comb, being of a violet red colour. The head is strong, long, and deep; the eyes are red and sparkling; the beak is strong, of medium length, and well curved at the end, and of a dark horn colour. The neck is of fair length; the shoulders wide, prominent, and strong, and the wings clip the body tightly. The wings are long, and well furnished with wide and strong feathers; the tail, long and strong, and is supplied with fine sickles and tail coverts, but is carried rather open; thighs, very strong, of fair length, and exceptionally muscular. They are placed well forward on the body. The shanks and feet are dark leaden, or blue. The toes are very long, and well spread out; the spurs strong, and set low down. The weight of the cock averages from $8\frac{1}{2}$ to 11 lbs. The hen presents the same characteristics as the cock, the comb, face, wattles, and ear-lobes, however, in her case being nearly black. The hen averages from 7 to 9 lbs. Bruges Game hens are fair layers of good-sized eggs, and will defend their broods against all enemies. The characteristic ground colour of the plumage is mostly blue or slaty. The hen is slaty blue from head to tail, with a thin black edge to the end of each feather in the body, the hackles being more distinctly marked with black. With the cock the hackles and shoulders are of a brilliant black, or of a very dark lustrous purplish-blue, somewhat similar to

the Andalusian,—the rest of the body colour being marked similarly to the hens. The Red Bruges Game is also highly prized, the cock having a dark orange-coloured hackle, the shoulders being more of a bright mahogany colour, the rest of the body black, with a greenish lustre. The hen to match the cock is salmon-red in breast, the hackles orange yellow, striped with black, the rest of the body feathers being marked with minute specks of black, on a yellowish ground colour. The Whites and Blacks need no description. Some of the latter are magnificent specimens. In selecting and breeding Bruges Game, the principal faults to be avoided are plumage of mixed colours, bright red combs in the Dark varieties, want of size, legs of a bad colour, body too short, white ear-lobes, drooping wings, crooked breasts, and wry tails. The chickens do not fatten quickly, nor is the flesh of the young birds very juicy, though as adult birds they are excellent eating. The Bruges Game are a variety of Poultry that should do well in Australia, and the Blues would be a most handsome and attractive variety for Exhibition purposes.

Dominiques are one of the oldest of the early American productions, and at one time were held in high esteem for their general all-round useful qualities. There were a few specimens exhibited in this Colony from 1887 to 1890, but since the latter year have not been shown, the Plymouth Rock displacing them in public favour. They closely resemble the Scots Grey in plumage, differing to that variety in having rose combs, brilliant yellow legs, and being more of the Dorking shape in body. As recent as the present year there was one specimen exhibited in Victoria, but the variety is not fostered to any extent in the Colonies. In America they are recognised as good layers and fine Table Fowls, the cocks averaging from 6 to 8 lbs., the hens from 5 to 7 lbs.

Faverolles.—This variety holds a very high position in France among the Table breeds. They were originated some thirty years ago in the village of Faverolles, and were produced from the crosses of Brahma, Cochin, and Dorking with the Houdan. Though not possessed of any strict uniformity of type or feather marking, they are a capital Table Fowl, and grow to an immense size. The breed is of a very tame and quiet disposition, the hens good sitters and excellent mothers, and the variety is one of the hardiest in existence, thriving well in any climate, being specially adapted for confinement in small runs. The general appearance of the majority of Faverolles tends towards the Asiatic, with the latter breed's quiet and imposing carriage, but there are others, again, which are more of the Dorking stamp in feather and type, and with the beard and muff of the Houdan.

Frizzled Fowls.—This class of Fowl has to many a very unattractive appearance, the whole of the body feathers and hackles standing up on the shafts and pointing forwards, much as a very broody hen appears when excited, but this peculiarity is natural. We have at various times examined specimens, which differed widely in comb, shape, and colour, which can, however, be accounted for easily, as, by turning down a Frizzled cock amongst a lot of ordinary hens, at least 75 per cent. will exhibit the peculiar character in the position of the feathers, though more often taking in colour after the hens from which they were bred. Some of the best-developed specimens were white, but at the time of writing we do not know of a single specimen, and certainly are not aware of anyone attempting to perpetuate them. Of those with which we were acquainted there was never any reference made as to their useful qualities or the reverse, they being looked upon more as "oddities" than anything else.

Japanese or Yokohama Long-Tailed Fowls.—This is another peculiar breed of Poultry indigenous to Japan, some specimens of which have been exhibited at the recent Shows of the N.S.W. P.P.C. and D. Society, under the name of Shinawaratos, and which commanded some attention. We also inspected some of the variety at the Zoological Gardens, about five years ago. The cock, unfortunately, died since; but the hens, we believe, are there still. The tails of these cocks were an immense length, the sickles dragging along the ground. The colour of the birds at the Zoological Gardens was similar to the Duckwing Game Fowl, the hens especially exhibiting the Game Fowl marking, but had extraordinary large tails, with a tendency to develop sickles in the top outer feathers. As to their useful qualities we cannot offer an opinion, but as an ornamental Fowl they are beyond question.

Javas.—This is a breed of Poultry recognised and known as a distinct variety for over 50 years in the United States of America, and can lay claim to the distinction of being one of the progenitors of that grand all-round Fowl, the Plymouth Rock ; in fact, the Plymouth Rock often sports back to this fowl. The colour most esteemed in the States is a bird of glossy greenish-black body colour throughout, with legs black, and beak nearly so ; the shanks without a vestige of feather. They are a characteristic variety, being very hard feathered, and having a very upright and stately carriage. The wings are wide, and of fair length, clipping the body closely ; the tail is of fair size, and carried at a moderate elevation. They are very heavy birds ; the cocks running from 9 to 12 lbs., the hens 7 to 9 lbs. The comb on both sexes is rather small, single, and well serrated. There are also various colours—such as mottled, etc. The breed is thoroughly well established in America, and recognised as belonging to the utility class of Poultry. We have at different times noticed birds of this variety, and were struck with their handsome and business-like appearance.

Naked Necks.—This is an old-established variety in Austria. The cock is generally of a dark birchen-grey colour. The comb is upright and single, and the name is derived from the entire absence of feathers on the neck right down to the shoulders. The bare neck, being a vivid red, creates quite a startling and by no means pleasing appearance. The thighs are at times quite devoid of feathers, with the exception of a slight fringe around the hocks. The hens vary considerably in colour. The comb droops to one side, and they are rarely as bare of feathers on the neck as the cock. In Austria they are esteemed for their hardiness, laying capabilities, and excellent qualifications for the table.

Russian Fowls are chiefly characterised by a growth of feathers on the throat and sides of face. This breed somewhat resembles the old-fashioned stamp of Muffed British Game, and are possessed of the true Game courage. They are hardy, useful Fowls.

Redcaps.—To Mr. Samuel Harkness, of the Jesmond Poultry Farm, Riverstone, N.S.W., we are indebted for the following notes on this variety. This gentleman writes :—

“The Redcap is evidently an off-shoot of the Hamburg, differing from them in having red ear-lobes, instead of white ; being of much larger size, of a more Gamey type, and possessing enormous large rose combs. There is no question as to their hardiness and laying capabilities, and as a Table Fowl they take a high position. I have kept the variety in the Old Country, but not in Australia, and I know of but two lots that ever came to this Colony. One pair of these were really good specimens. There seems to have been little or no encouragement offered in the past to the introduction of this breed to the Colonies. I am aware, by practical experience, of the merits of the Redcap, but find it extremely difficult to convince others of this fact, each and all looking upon them as an over-grown, off-coloured, huge combed Hamburg ; but this is entirely a mistake, as they are one of the oldest breeds known in Great Britain. There is no doubt that the Redcap is partly composed of Game blood, possibly crossed with the Gold-Spangled Hamburg. There were, in my time, a great number of different strains of the breed, which were held in high esteem for their exceptionally good all-round useful qualities. The Redcap cock is a bird of strikingly majestic appearance, having a very ornamental and symmetrically-shaped comb, full of work, or points, with a leader, or spike, of fair length behind—in fact, an abnormally developed Hamburg comb. It is more flexible than the Hamburg's, the bird having the power of tossing it slightly to each side at will. The appearance of the comb when the bird is in high condition baffles description, and is a part and parcel of the bird. If the comb is removed, a Redcap cock would pass very well for an old-fashioned Game cock. They have some of the game spirit of the latter, being very pugnacious. Many would imagine that the comb, being so large, would look out of proportion to the bird ; but this is not so, the bird showing, by his movements, that he, at any rate, is proud of it, and it is not nearly as liable to fall over, and remain in that position, as the comb of a Leghorn or Minorca cock. In general outline and appearance the Redcap cock resembles a full-breasted and large Hamburg, the carriage being smart and active, the whole bird being symmetrical, and pleasing to the eye. *The ear-lobes* should be RED ; *neck hackles and saddle hackles*, bright rich red,

striped with black, avoiding strictly a cock dark, almost approaching black, in the neck hackle, or pale and yellowish, such a bird failing to breed pullets. *The back* should be a deeper red, spangled with black spangles, like a half-moon in shape; *the breast and tail*, black; *legs*, slate-coloured, long, and of fair length. The Redcap hen is a fine, roomy-shaped bird, just the sort to make a good layer. The whole ground colour of the breast, back, and wings is a deep, sound-coloured golden-bay (not a yellowish shade), each feather being spangled at the end with a half-moon of greenish-black. These should be evenly distributed throughout the body, and run up the tail coverts, the true tail being very dark, almost black. The comb should resemble the cock's, but not so large. In this breed no difficulty is likely to be experienced in rearing the chickens, as they fledge quickly, and are very hardy, and I would like to see the breed taken up in this Country, as, without doubt, for a general all round useful Fowl, the Redcap would be hard to beat. I would not like, however, to see them taken up and bred to Fancy Points, as this would, of necessity, quickly destroy their main virtues; but my readers may rest assured that, if they require a *pure breed* for Utility purposes, they could not possibly invest in a better class of Fowl than the Redcap, the main feature in the breed being the fact that, unlike most other breeds of Poultry, the Redcap hen is a good layer of large and well-flavoured eggs, which she will continue to produce in abundance until six or seven years old, when the majority of other breeds have retired from the egg-producing business. I am not aware of there being a Standard for judging the breed; and, failing this, in my opinion, all encouragement should be given to the practical qualities, of which symmetry and size of body are the chief desiderata, which would tend towards increasing and fostering the principal features for which the Redcap Fowl is, and has been, famous for over a century.⁷

Royal Blues.—We are pleased at all times to compliment an originator of a new variety of Poultry when the latter is produced on Utility grounds, as to these innovations we can attribute those now justly recognised valuable breeds of Poultry, Plymouth Rocks, Wyandottes, and Orpingtons, all strictly belonging to the generally useful varieties of Poultry. The breed now under description is a purely Australasian effort, and of great interest accordingly. To Mr. J. C. Coupe, of Melbourne, Victoria, belongs the honour of originating and introducing this variety, which he did with a specific object in view, and which we venture to state will be of lasting benefit to those who require a good-sized, useful, all-round Fowl. In Mr. Coupe's own words, he states:—

“The Royal Blues claim to be a distinctly Australian variety, just as much as the Plymouth Rock, Wyandotte, and others claim American, or the Orpington English origin; and about seven years ago I was keeping, amongst other varieties, some very good Andalusians. I say very good advisedly, though they were not Exhibition specimens, but stood in the front rank of prolific layers. As all acquainted with the Mediterranean breeds are aware of their exceptionally good character as laying breeds, and are also aware of their many shortcomings as ideal Table Fowls, and as the Andalusians mentioned were no exception to the general rule in this latter quality, I decided to try and improve this by introducing crosses of well-known and good Table varieties, retaining at the same time the beautiful blue ground colour and dark lacing of the Andalusian, and at the same time to encourage and stimulate the laying capabilities in winter in which I found the Andalusian deficient. After experimenting and definitely fixing these characters, which extended over a period of seven years, I now claim to have succeeded fairly well in bringing the breed to its present state of perfection. They are large, well-fleshed Fowls, and very handsome when in high condition and good plumage. They are quiet and docile, and, although they do not exhibit the incubating instinct to a great extent, make excellent mothers and sitters when allowed to do so. The chickens are extraordinarily hardy, and grow very fast. Last season I reared over 80 chickens, and did not lose one excepting through accident, which, I venture to state, speaks volumes for their hardiness. This present season (1896) I have about 50, now well grown, and up to date have not had a sick one among them. Of course, the first question likely to be asked concerning any breed or variety of recent formation is, do they breed true? I can honestly state that they breed as true to feather and type as any other made breed, and quite as well, or

even better than their close relations, the Blue Andalusian. They, however, possess this advantage over the latter, in this, that if a few black or speckled feathers appear in some of the birds bred, they, being extra large and heavily-fleshed birds, are worth the cost of rearing for Table purposes alone, which cannot be truly said about the Andalusian. This present season the percentage of chickens produced with black or foul markings has not exceeded 10 per cent., and I hope by next year to have a much smaller percentage of culls. As layers I will match them against any other pure-bred variety, especially in the winter, and their eggs are of a good size, and slightly tinted. They do not, as a rule, develop the incubating instinct more than once in a season.

“These birds being of good size, with *white* skin, long, broad back, with deep, wide, meaty breasts, are excellent Table Fowls, and would be a very suitable class of Fowl for export to the London market, or, for that matter, any other market where a good Fowl is appreciated. I have not as yet pushed them to any extent, being desirous of having them fixed definitely before introducing the breed to the notice of the general public, but I disposed of a few specimens to different breeders, amongst others some to Mr. E. Butcher, of Sydney, N.S.W., who speaks in the very highest terms of their economic qualities. The N.S.W. P.P.C. and D. Society allotted classes for the breed at the 1896 Show, and some good specimens were exhibited, and in all probability the classes will be much larger each year. It is a difficult task to perfectly describe a bird on paper, but I will endeavour to give a fair idea of the general appearance of the Royal Blues. In size and style they should resemble a short-legged Langshan, with the same leg-feathering as that breed, but differ from the Langshan in having a *triple or pea comb*; this is a distinctive characteristic, the Blue Langshan having a single comb. The colour, to be ideally perfect, is that of a well-marked Andalusian, but a few streaks in the hackle and saddle are admissible, although this should be avoided as much as possible. The shanks are dark blue in colour, the under-part of feet white; a yellow leg or yellow skin should be a disqualification.

“It will be seen that no one but myself is aware how the breed or variety was manufactured, so that there would be a difficulty in obtaining fresh blood. To obviate this, I have commenced breeding from the same varieties first used in the composition, using, however, fresh strains of blood in order to procure a cross for the present stock without interfering with the type; and I hope to have some good stock in this second batch by 1898, which I think will be quite soon enough to infuse fresh blood.”

GENERAL CHARACTERISTICS.

COCK.

Head.—Rather thick across the skull, with strong horn-coloured beak.

Comb.—Triple or pea.

Wattles.—Moderate in length, and neatly rounded; white in face or ear-lobes a defect, *but not necessarily a disqualification.*

Breast.—Deep and wide, with a long keel or breast-bone.

Neck.—Slightly arched or curved, with full, flowing hackle, free from curled or twisted feathers.

Back.—Broad, and of good length from base of neck to root of tail.

Tail.—Full, and fairly well furnished with silky side sickles, not too long.

Thighs.—Not too long, but well fleshed, with rather more fluff than the Langshan, but not as much as the Cochin.

Shanks.—Dark blue, with white soles to the feet, and slightly feathered on leg and outer toe only.

Colour.—A bright slaty-blue ground colour, with dark or nearly black hackle, back, saddle, and tail coverts; the breast must be laced the same as an Andalusian.

General Appearance.—That of a quiet-tempered, heavy bird.

Weight is very important. A well-grown cock should weigh from 9 to 12 lbs. (the heavier the better.)

HEN.

The remarks describing the cock will, to a great extent, describe the hen, with, of course, a difference in hackle, tail, and saddle. Her shape should resemble that of a good type of Orpington hen.

Colour.—A bright, slaty-blue ground colour, with clear lacing, the neck hackle, back, and tail being a little darker than under-parts. *Weight*.—From 7 to 10 lbs. (the heavier the better).

POINTS TO BE OBSERVED IN JUDGING.

<i>Head</i>...	...	...	...	...	...	...	...	...	...	...	5
<i>Comb and Wattles</i> ...	...	...	...	...	...	...	...	...	...	...	5
<i>Back</i> ..	...	...	...	...	...	...	...	...	...	...	10
<i>Neck</i> ...	...	...	...	...	...	...	...	...	...	...	5
<i>Breast</i>	...	...	...	...	...	...	...	...	...	...	15
<i>Legs and Feet</i> ...	...	...	...	...	...	...	...	...	...	...	10
<i>Weight</i> ...	...	...	...	...	...	...	...	...	...	...	20
<i>Colour and Marking</i> ...	...	...	...	...	...	...	...	...	...	...	15
General Carriage and Style	...	...	...	...	...	...	...	...	...	...	5
Tail ...	...	...	...	...	...	...	...	...	...	...	10
											—
											100
											—
Red-coloured feathers in hackle and saddle	...	...	...	...	...	...	...	...	...	...	5
Want of size	...	...	...	...	...	...	...	...	...	...	10

Negative Points.

Legs or skin yellow, soles of feet yellow, comb other than pea or triple, feathers on middle or inner toes, legs plain or clear of feather.

Rumpless Fowls.—So-called because of being entirely without tails, and being destitute of the caudal projection, the spine itself being deficient in the final vertebrae, certainly look very unattractive without that appendage, and are a very peculiar variety of Poultry. We have seen but three specimens of the breed in this country, their principal characteristic trait being the manner in which the wings are carried, and the forward and upright carriage of the body, the legs having the appearance of being placed right at the back of the body. The saddle hackles of the cock are very abundant, and fall over thickly at the back of the rump.

Silkies may be classed among the peculiar breeds of Poultry. In addition to being possessed of a striking form of silky-white plumage, the skin is of a deep violet colour, and, in some instances, quite black, the surface of the bones also being of the same colour. The comb, face, and wattles are of a dark bluish caste, the ear-lobes being a slaty-blue, the legs, with five toes, being feathered, but the joints of the knees are not vulture-hocked; the shanks are also blue in colour. The plumage is entirely composed of silky feathers, more or less separate in the fibres. A number of these unique birds have been bred and exhibited here, their main value being the fact that they are of great use to hatch and rear bantams, one breeder of Game and Sebright Bantams breeding them exclusively for this purpose. The cock should have a full, prominent breast; the hackle feathers, very full, and flowing over the shoulders; the saddle, full, and rising upwards to the tail, which should be small, and well curved. The comb is double, with scarcely any points on top, and behind the comb a tuft of feathers project straight out on the cock, with an upward curve at the extremity, the hen's crest being more globular in form. They are rather small, the cocks averaging about 3 lbs., the hens 2 lbs. in weight.

Sultans.—This breed of Fowl is, without exception, one of the most ornamental varieties of Poultry, and, until within the last few years, was extensively bred by Mr. Samuel Harkness, of Riverstone, who exhibited them at various Shows with success. Other Fanciers in the Newcastle district also bred them, but we fancy they are now extinct in this colony. They are a Fowl of milky white plumage throughout, with very large crests, muffs, and beards; long in wing, heavily feathered on shanks and toes, and vulture-hocked. The hens are excellent layers of large eggs in proportion to their size, are small eaters, and do not incubate, and as a handsome and attractive breed of Poultry have few equals.

Sherwood Fowls.—This breed is named from the plantation of Sherwood, in Virginia, America, where they were originated by Mrs. Timberlake, some forty years ago, by a series of systematic crossing of different varieties. The groundwork of their composition rests with the White Georgia Game Fowl, crossed with Cochins and Light Brahas. The Sherwood Fowl derives its large frame from the Asiatic, and its full breast, juicy flesh, stylish and majestic carriage from the Game. The beak and legs are yellow, the comb single and erect, the ear-lobes bright red, and the whole plumage throughout a lustrous white, very close, and hard. The legs are slightly feathered on the outside of the shanks, somewhat similar to the modern Langshan. The breed is well suited to a severely cold climate. The chicks are extraordinarily hardy, and are fit for the table at from twelve to fourteen weeks old, the flesh being excellent. The hens may be classed as the best of mothers, being of a gentle and tractable disposition, and are splendid layers of large and well-flavoured eggs. The cocks average about 10 lbs. in weight, the hens 7 to 8 lbs. As a thoroughly high-class utility breed they can be strongly recommended, and promise to occupy a front position as general purpose Fowl.



CHAPTER XLI.

FRENCH BREEDS

(OTHER THAN THE HOUDAN).

IN treating on the subject of the French breeds of Poultry other than the Houdan, we have to remark upon the one characteristic trait that the whole of them possess—that of their good table qualities, which are, without a single exception, of the highest order, both as regards whiteness and juiciness of flesh, and comparative smallness of bone and waste offal. There is no doubt that as high-class varieties suitable for a special purpose—that of Fowls for table and export—our Poultry Farmers might do a deal worse than introducing one or other of the French varieties. Even as pure-bred birds they would give much larger net returns than many of the breeds with which we are closely acquainted. Another important point, not to be overlooked where uniformity of plumage is desired, is that again, almost without exception, the more prominent French varieties are either black, or black and white, it being an extreme rarity to find a breed or variety, which exhibits other mixed coloured feathers in the plumage, and a number of them also possess pinky-white feet and legs, a considerable recommendation for a class of Poultry suitable for export. No danger is at all likely to arise on the score of the French breeds being difficult to acclimatise in Australia, we in this country being in a much more favourable position regarding climate than either America or England. We therefore proceed to give a short description of the various French breeds, omitting the Houdan, which however, will be found fully described in Chapter XXIII.

A
CRÈVECŒUR.

This variety is of bulkier appearance than the Houdan, although similar in many respects, the bird being a little longer on the leg, and wanting the characteristic fifth toe, which the Houdan possesses, and the comb is also of quite a different formation. They are, however, quite the equal of the Houdan for table purposes, though not quite such consistent layers. There are three varieties of Crèves—Blacks, Whites, and Blues, or Slate-coloured. They are non-sitters, and are recognised as a delicate breed, being suitable only for warm, dry climates. If kept under these conditions they will thrive, and give as good a return as any individual breed. The chickens when first hatched are black, the crest being black and white, the under colour of body being yellow.

One important point in their favour is that they bear confinement exceedingly well. They are, however, very subject to the same disgusting habit of feather-eating as the Houdan, if not looked after and fed properly. They are just as tame and confiding in disposition as the Houdan, and are a breed which is attached to home surroundings, so much so, that at times, if allowed to intrude on the precincts of the outhouse or kitchen, they will become a nuisance; on the other hand, if given a free range, they are excellent foragers, and will give better returns if kept under these conditions. The principal distinguishing features of the Crèves from the Houdans are the legs, feet, and comb. The latter is a very peculiar and unique appendage, and found solely in this breed, being composed of two horns branching outwards from the base. The crest and beard are more fully developed than in the Houdan, but in most cases the Black Crèves will exhibit white in crest at or about two years of age. This is, of course, a fault for exhibition, which, as a matter of course, spoils their appearance, but may be counteracted by mating the breeding stock to eradicate the tendency. For crossing to improve the quality of meat in other breeds they are of great value, this quality being so prepotent in the Crèves, and as the stock thus bred is certainly improved to a great degree in hardiness, in which the Crève fails, there is much to be gained on both sides if high-class Table Fowls are desired.

GENERAL CHARACTERISTICS.

COCK.

Head.—Thick, broad, and large, and similar to the Polish in appearance, but much larger.

Beak.—Moderate size ; very dark brown or black in colour.

Comb.—Double, and represents two horns branching outwards and upwards from the thick mass of flesh growing above the beak, and which terminate at the base of the crest. These two spikes or horns should be of moderate length, smooth, and free from any excrescences on the middle and top portion, the lower being generally covered with small protuberances. This peculiar comb is a distinct characteristic of the Crèveœur, and is found solely in this breed. The colour of the horns or spikes and the fleshy mass at the base is a bright red, and gives the bird quite a weird appearance

Eyes.—Bright red. This is an important point to be looked for, a bright red eye denoting strength and vigour.

Wattles.—Bright red, rather long, and neatly rounded.

Ear-lobes.—Very small, and of a bluish-white colour. These are quite hidden from view by the muffling.

Crest.—Extra large and full, well furnished with very long, drooping feathers, falling all round the neck at the sides and back, and is more fully developed than in the Houdan.

Beard.—Full, and fair length.

Muffling.—Very thick, hiding from view the throat and sides of the face.

Neck.—Carried upright, well covered with hackle feathers of moderate length.

Back.—Rather short and broad, showing a slight incline towards the tail.

Wings.—Large, but carried closely to the body.

Breast.—Very full, carried well forward, deep and full.

Thighs and Shanks.—Short ; the shanks free from feathers, and very dark slate or black in colour.

Toes.—Four in number, straight, and dark slate or black in colour.

Tail.—Very large and full, with high carriage ; the sickles broad, long, and well curved.

General Appearance of the Body.—Massive and square, with great depth of body.

Weight.—8 to 10 lbs., or more.

Carriage.—Active and lively.

Plumage.—In Blacks, the greenest-black all over, including crest ; any white feathers, except in crest, a disqualification. A dull or sombre black is very objectionable, and should be discouraged. In Whites, the purest white, black feathers being a disqualification. In Blues, the purest slate colour, without admixture of white.

HEN.

The hen resembles the cock in all points except hackle and tail, but is correspondingly smaller in head, beak, comb, wattles, deaf-ears, and beard ; but is more globular and compact in crest than the cock, the breast being also more prominent than the cock's, the weight of a fair average hen being 6 to 8 lbs.

STANDARD FOR JUDGING CRÈVEŒURS.

A perfect bird in shape, crest, colour, and other points, and in perfect health and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad comb	...	...	...	...	...	...	...	...	...	13
Deficiency of crest, beard, or muffling	...	...	...	...	...	...	...	...	...	12
White in crest in Blacks, or black in crest in Whites	...	...	...	...	...	...	...	...	...	15
Want of Size	...	...	...	...	...	...	...	...	...	30
„ „ Symmetry	...	...	...	...	...	...	...	...	...	15
„ „ Condition	...	...	...	...	...	...	...	...	...	15

DISQUALIFICATIONS.

Absence of crest, beard, or muffling; red, brown, or straw-coloured feathers in plumage; feathered shanks or feet; shanks and feet any other colour than black, or leaden-black; presence of fifth toe, wry tail, or any other bodily deformity; any fraudulent dyeing, dressing, or trimming.

LA FLECHE.

The La Fleche differ considerably in shape, style, and form from the Houdan and Crèveccœur, and, in fact, the breed, as fostered in England and in France, also differ, the English-bred bird having *no* crest, the French-bred having a smart tuft of feathers on the head. In appearance, the La Fleche is a rather narrow, tall, gaunt-looking bird, inclining to the shape of the Spanish Fowl, but possessing a widely-different comb. The difference in the head points virtually make two varieties of the breed, though their other characteristics are alike. The bird, as now bred in England, is even taller than the Spanish, and has a red face, *white* ear-lobes, and greenish-black body colour. They are not nearly as precocious as either the Crèveccœur or Houdan, maturing very slowly, which retard their being kept where early chickens are desired for table purposes; though, when matured, they fatten quickly, the flesh being considered quite as good as the two mentioned varieties. They are better layers than the Crèves or Houdans, but are inclined to be delicate, and require a warm or mild climate, and dry soil, with well-sheltered surroundings. Like the Crève and Houdan, the hens are non-sitters. The chickens hatch Black and White. In mating the La Fleche Fowls for breeding, size, shape, style, prominent breast, and entire absence of white in plumage are the chief considerations, though the comb and ear-lobe must also be given attention, if high-class specimens of the breed are desired. One great disadvantage in rearing the chickens is the decided tendency to leg-weakness; but this can be obviated to a great degree by choosing for mating only well-matured and vigorous-constitutioned stock birds on both sides. There is no doubt that this failing militates against the breed becoming popular, and, in fact, they will not do well unless bred and reared on perfectly dry soil; but, where this can be obtained, they will be found a most useful and valuable breed of Poultry. The La Fleche, as recognised by the French breeders and judges, as we remarked before, has the head adorned with a very small tuft, or half-crest, of feathers; but do not differ in any other important point to those on the other side of the Channel. For our purpose we will describe the breed as known in England.

GENERAL CHARACTERISTICS.

COCK.

Head.—Rather long, and free from crest.

Beak.—Long, strong, of a dark horn or black colour, the nostrils being large, and cavernous.

Comb.—Bright red. This feature is something like the Crèves, being composed of two more or less upright horns, of fleshy formation, with smaller spikes at the front and base. The combs in this variety vary—in some birds having branches projecting from the inner sides, similar to the horns of a young stag; in others, nearly upright; and in a third, branching out at an acute angle.

Ear-lobes.—Extra large, and pendulous, pure white, without stain or folds.

Wattles.—Bright red, long and pendent, well rounded at the bottom.

Face.—Bright red, quite free from feathers.

Eyes.—Red and brilliant.

Neck.—Long, erect, and well covered with hackle feathers.

Back.—Wide, long, with an incline towards the tail.

Wings.—Large, and carried closely to the body.

Breast.—Wide, deep, and full, very prominent.

Tail.—Full, carried at a moderate height, well furnished with broad, long, and well curved sickles.

Legs.—Thighs and shanks long and stout, the shanks dark slate, or nearly black.

Toes.—Four on each foot, straight, and same colour as shanks.

Size.—Large, averaging from 8 to 10 lbs.

Carriage.—Erect, and stately.

Colour.—A bright, glossy, greenish-black, the feathers very bright and hard.

HEN.

The hen should resemble the cock in head, beak, face, eyes, legs, and feet. The comb should be like the cock's, but very much smaller; wattles, also, smaller and rounder; in other respects resembling the cock, making allowance for difference in sex, which gives a more compact appearance. *Weight*, 6 to 8 lbs.

STANDARD FOR JUDGING LA FLECHE.

A perfect bird in shape, style, carriage, colour, and in perfect health and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad comb	10
Stained or wrinkled lobes	10
White face	10
Want of Size	35
„ „ Symmetry	15
„ „ Condition	20
	100

DISQUALIFICATIONS.

Presence of crest, entirely red ear-lobes, shanks or feet feathered, or any other colour but black or leaden-black, wry tails, or any other bodily deformity; any fraudulent dyeing, dressing, or trimming of the plumage or comb.

In addition to the three varieties mentioned, there are a number of various breeds known and recognised in France as distinct varieties, the whole of which have their merits, and which, in certain districts, each have their admirers. However, they all seem to possess the best and most useful qualities desired in Market Poultry, and a short description given will, no doubt, be of some interest. These breeds are called Barbezieux, Bredas or Guedres, Courtes-Pattes, Coucou de Rennes, Caumont, the Campine, De Caux, Du Mans, La Bresse, Gournay, the Gatinais, the Mantas.

BARBEZIEUX.

The Barbezieux is a bird of stout build, tall on the leg. The plumage is entirely black in both sexes, the cock's showing a greenish-black sheen throughout, with large white ear-lobes, and shanks and feet of a leaden colour. The comb is single, the cock's being of large size, deeply and evenly serrated, with wattles large and pendent. The hen is not nearly so brilliant in colour as the cock, having a more sombre hue, her comb falling to one side, but evenly and deeply serrated; the ear-lobes, also, being rounder than the cock's. This breed of Fowl thrives best on dry soil, being slightly inclined to be delicate in constitution. The hens are considered to be the best layers of all the French varieties, are excellent sitters and mothers, the chickens when hatched are black, with yellow under colour. They do far better with free range than if kept in confinement. In the former instance, the chickens grow very fast; but in the latter, the chickens mature very slowly, and fledge indifferently. This Fowl is of very ancient origin, and is valued at its true worth by the farmers and cottagers.

BREDAS, OR GUELDRES.

The Breda, or Guedre fowl is known by either name, but, in reality, the latter name applies more to the slate or cuckoo-coloured branch of the same variety; the true Breda being a black fowl without admixture of plumage. This breed belongs to the strictly useful class of domestic poultry, the hens being good layers of fair sized eggs, but cannot be depended upon to incubate. The Breda is a very plump, meaty fowl, with a good proportion of white, delicate, juicy flesh on the breast, and stand in the front rank as table fowls. Their appearance is very peculiar, neither cock or hen possessing any semblance of comb, the nostrils being very large and

cavernous. The Breda has a few feathers on the shanks of the legs, and has a tendency towards vulture hock. The breed is confined to the northern provinces of France, being rarely met with elsewhere. The general characteristics of the cock are:—The head is of peculiar structure, caused by the large and indented nostrils, and entire absence of comb; the beak is small and of a dark horn colour; face, red; wattles, bright red, long and large; ear-lobes, large and pendulous, sometimes red, in other cases white; crest, a mere upturning of the head feathers; neck, long, well covered with long hackle feathers; back, broad and tapering to tail; breast, full, deep, and prominent; thighs, short and stout, covered at the junction of shank with stiff feathers, known as vulture hock; shanks and feet, dark slate or black; toes, four on each foot, well spread; tail, of moderate size; weight, 7 to 8 lbs. The hen resembles the cock in all points, allowing for difference in sex. The fair average weight of a hen being 6 to 7 lbs.

COURTES-PATTES.

Courtes-Pattes—in Anglo-Saxon “Short Feet,” or more freely translated and adopted “Short Legs”—are a quaint breed of fowls, and exhibit the characteristics of a manufactured breed. They are jet black in colour, and possess a wonderfully strong constitution. They rank high amongst the useful breeds as they are very small eaters; the hens are first-class layers, good sitters, and the best of mothers; the chickens hatch black, with yellowish-white under-colour. They are exceptionally tame and confiding in disposition, and are a class of fowls suited for keeping near or in a garden, their legs are so very short they cannot possibly do much damage by scratching, and as insect, worm, or grub destroyers they are excellent. They are very precocious, hardy, and will thrive anywhere. They fatten quickly; their flesh is of the whitest and highest quality, and, as a thoroughly useful fowl, with an exceedingly small appetite, there are none superior. Their appearance is very squatty and dwarfish, owing to the shortness of the legs, their bodies being that close to the ground makes them appear to be almost without legs. The general characteristics of the cock are:—Head, small; comb, single, erect, with fairly deep and regular serrations, and of a bright red colour; wattles, bright red, long and pendent; ear-lobes, large, smooth, and white; eyes, bright and sparkling; tail, large, full and flowing; plumage, glossy, green-black throughout; body, square, deep and full; legs very short; shanks and feet, leaden colour. The hen resembles the cock in all points, making allowance for difference in sex, except comb, which in her case inclines to one side, and is smaller than the cock's.

COUCOU DE RENNES.

This breed of Fowls is of a blue and white or “cuckoo colour,” and is very common throughout Brittany. The cock possesses a stately carriage, not unlike that of the Scots Grey, the body is full and plump, the breast very prominent, the comb large, single, with regular and deep serrations; wattles large, lobes almond shape and white in colour, with a slight margin of red; the neck thick and short, well furnished with hackle feathers; back, broad; tail, large and full, with abundant sickles; the legs are strong and stout; the toes and shanks are of a fleshy-pink colour. The whole plumage is barred similarly to the Plymouth Rock, the ground colour being a slaty-blue, the bars being of a blue-black shade. The tail is well-barred with black, on a lighter ground than the body colour. The hen is similar to the cock in all particulars, making allowance for difference in sex. The Coucou de Rennes hens are excellent layers of large-sized eggs, and the breed is a very profitable one to keep, as they mature quickly, put on flesh rapidly, and the meat is of high quality.

CAUMONT.

This variety is sometimes called Pavilly. It possesses the main characteristic features of the Crèveccœur, but is much hardier in constitution than the pure Crève, and is able to withstand variations of temperature and damp locations much better. There is undoubtedly a preponderance of Crève blood in their composition, but the cross used has worked wonders. They are far better layers than the Crèves. The principal distinguishing features from the latter are smaller size, less crest, and wanting beard. The

Caumont rank high as a table Fowl, being ready to fatten for market at three months old. The flesh is of fine texture, white and juicy.

THE CAMPINE.

This breed originated in Belgium, but are now widely known throughout France and America. Like the Creve, they cannot be kept under damp or wet conditions, and require a thoroughly dry soil to do at all well. Under these circumstances they are splendid layers of good-sized eggs. Some authorities claim for this breed of Poultry the title of Champion Layers. Their flesh is juicy, white, and of delicate flavour. For the table alone, they are not a profitable breed to keep, being of very slow growth, and maturing late. The plumage is very varied, resembling somewhat the various varieties of the Hamburg.

DE CAUX.

The De Caux is a rather small Fowl, and quite black in plumage. The comb is single, and carried erect, the wattles are large, the ear-lobes white, tinged with blue, the shanks and feet are of a greyish shade. The hens are considered good layers, but cannot be depended upon to incubate. The flesh, like the majority of French Poultry, is very firm, white, and juicy, and of excellent quality. There is still another sub-variety of the De Caux, named Caussades. These are very similar in appearance, though scarcely so large in body, but have rather larger ear-lobes than the De Caux.

DU MANS.

The Du Mans breed is of the same colour, shape, and carriage as the La Fleche, differing from the latter variety in the comb formation, the Du Mans having a rose comb ending in a long spike or leader at the back similar to the Hamburg. The hens are not classed in the front rank of the French laying breeds, and do not incubate to any extent; but as a set off to this failing have extraordinarily hardy constitutions, and will thrive anywhere. The chickens are very precocious and quickly arrive at maturity, the flesh being of high quality and delicious flavour.

LA BRESSE.

This variety has a decided resemblance to the Dorking in shape, but can only be classed as a good stamp of common fowl. They are found in two colours, blacks and greys, or more properly speaking, speckled. The chief characteristics of the black variety is the carriage of the cock, the comb straight and single, thick at the base, and well serrated; the wattles long and pendent, thin, and of fine texture; ear-lobes of good size, white, and smooth; shanks and feet slate colour, with *four* toes to each foot, showing that if the Dorking has been used in their formation, the fifth toe has been bred out; the tail large, full, and with an abundance of broad curved sickles. The hen resembles the cock in all points, making allowance for difference in sex, though in her case the comb falls to one side.

The plumage of the grey or speckled variety is composed of irregular markings of black and white. The cock is white on the breast, back, and hackles; black and white on the wing, the tail, and especially the sickles, black, irregularly splashed with white, the under part of body and fluff also splashed with white. The hen to match is unevenly splashed all over the body with the exception of the true tail, which, as a rule, is nearly always black, with just a few specks of white on the top feathers.

The grey hens are good layers, and do not frequently develop the incubating instinct, but if they exhibit signs of broodiness can be relied upon as steady sitters and good mothers. The blacks are generally considered superior to the greys, being larger and of stronger constitution, and in consequence the chickens are easily reared. They are also good sitters and excellent mothers. To breed each variety to perfection they must be allowed free range, and under these circumstances are good foragers and cost but a trifle to keep. They will not do well in confinement, being unable to stand the least restraint, pining away and dying in a short time, and will not give a fair or reasonable return if kept on wet or damp ground. The flesh of the La Bresse is very white, the skin fine and delicate looking, and is excellent eating.

GOURNAY.

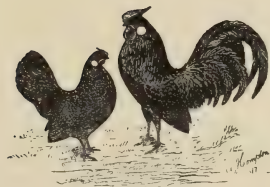
This breed is the common Fowl of Normandy, and is of fair size, with mixed plumage of black and white. The comb is single, erect in the cock, but falling to one side in the hen. In both cock and hen the wattles are large, but the ear-lobes are very small and have a whitish blue tinge. The hens are good layers of fair sized eggs, but rarely develop a propensity to incubate. The chickens when hatched are black and white. The quality of the flesh of this Fowl is good.

THE GATINAIS.

This breed is principally confined to the old province of Gatinais, from whence it takes its name. The plumage of both cock and hen is pure white, the legs being of a pinky flesh colour. This breed has a pea or triple comb. The hens are splendid layers, good and steady sitters, and the best of mothers.

THE MANTES.

This variety is evidently a cross between the Gournay and Houdan. They are of good size, with a mottled plumage similar to the Houdan. They have a rather peculiar appearance, possessing beard and muffling but no crest; the head is surrounded by a single comb, upright in the cock and falling to one side in the hen; the body is of massive shape, and the back has a good incline towards the tail. Another peculiarity about the breed is the absence of the main sickles in the cock, giving the bird an unfinished appearance. They are fairly long in the legs, with thin straight toes. The breed is in much favour in Belgium; the classes at the Belgian shows being well patronised. They are excellent layers, rarely evincing a desire to incubate. The flesh is of the highest quality for the table.



CHAPTER XLII.

BANTAMS OTHER THAN GAME.

BANTAMS always have had—and, we suppose, always will have—their supporters and admirers—and there is much to be said in their favour. Bantams are now bred in every shade of colour markings, and variety of shape and form—long-legged, short-legged, some with their bodies actually touching the ground, some feather-legged, others clean-legged, some single-combed, others pea-combed, some strawberry-combed, others rose-combed, and some without those appendages at all.

Bantams require but limited space to thrive and do well, and on these grounds alone make it practicable to keep one or other of the varieties, where keeping larger Poultry is quite out of the question, and offer inducements to those persons who require a hobby, which would not be possible to cultivate under ordinary circumstances. Their food is an inexpensive item, and for exhibiting purposes as great, or a greater, return may be obtained from them under this head than from the larger varieties of Poultry. The eggs they lay are by no means to be despised, the hens laying eggs far larger in proportion than the major breeds. There is, of course, a difficulty in rearing the young chickens, though, as adult stock, all bantams are extraordinarily hardy, and there is little fear of the market being overstocked, as to breed high-class specimens of any of the varieties is by no means such an easy task as would appear.

In feeding Bantams, the supply should be liberal, and of the very best quality, though care should be exercised in not over-feeding. They have a predisposition to gorge themselves if allowed to do so, thus becoming too fat either for breeding or Show purposes. The chickens require a little more attention than larger Fowls, and should be fed with a little, and often. The adult birds, with the exception of one or two varieties, do better in confined runs, and when kept under these conditions, must have a plentiful supply of green food provided. Where grass runs are at command, this may wholly, or in part, be dispensed with. Ripe fruit of all descriptions is an excellent change for them, and does them an amount of good. Bantams may be fed with the whole of the recognised Poultry foods, with the exception of whole corn, the latter being too large for their tiny crops, often, when it is fed them, causing crop-bind. Grit, gravel, and pure water are just as essential to their welfare as to other Fowls; and if a little of the Douglas Mixture Tonic is added to the drinking water for about a week at a time, during moulting, or severely wet weather, much marked benefit will be noticeable in their condition.

Many admirers of the Bantam family have the idea graven on their minds that all Bantams should be of one uniform size and weight. This is an erroneous impression, as to breed some of the varieties to the small scale, say, of the Black Rose-comb, would be entirely out of proportion to the breed that they are miniatures of, besides often, by this means, completely destroying fecundity. In our opinion, to which we have given years of thought and study, we think that one-fifth the Standard weight of the breed, of which they are the prototypes in miniature, should be the *correct* weight, the bird being in good health, flesh, and condition, not over-fat, or ridiculously thin. The Standards here given for these points will remedy any likelihood of a bird passing the Judge, which fail in either case.

In mating Bantams for breeding, much the same plan as directed for the larger birds will be the best course to pursue, from two to four hens, according to the vigour of the cock, being sufficient. In-breeding in Bantams is extensively followed, but at times crossing becomes absolutely necessary; and though, in all probability, the first cross with alien blood will not turn out satisfactorily, persevere, and breed back the progeny to the parents, when good results will, likely enough, be obtained. In breeding Game, or Indian Game Bantams, the cockerels, if well developed, should be dubbed at about six or seven months' old. The pullets

of this breed look at their very best when between the ages of five and seven months. Other varieties take longer to mature, and thicken out; but, as a point worth remembering, if Bantams are wanted long in the leg, early hatching is the secret; if short legs are desired, postpone hatching till the middle, or latter part of the season. This is given as a guide where exhibiting the birds is the reason for breeding them; but if required as ornaments solely, or as pets belonging to the household, the best time is early Spring, the season being entirely in their favour.

The varieties of Bantams may be classed under three heads: The *old* breeds being Sebright, Pheasants or Spangled, Black and White Rose-combs, Nankins, Booted, etc.; the *intermediate* breeds being Game, Cuckoos, Frizzled, Rumpless, Japanese, Buff Pekins; the *later* breeds, or productions, being Burmese, Black Pekin, Cuckoo, Pekin or Cochins, also White and Partridge ditto, Indian Game, Malays, Aseels, Brahmas, Polish, Sultan, etc.

Rose-combed Bantams.—Of the old breeds of variety Bantams the Black and White Rose-combs have been general favourites for many years, though latterly they have been much improved in the characteristic Fancy Points. The ideal Black Rose-comb Bantam is now a Black Hamburg in miniature. In plumage, both cock and hen should be as green a shade as possible; the faces and combs, the brightest coral-red; lobes, white as snow, and soft as kid, and as round as possible; the legs and feet, black. To breed the Black Rose-comb cockerels, it is found that the best results will be obtained by keeping one strain to breed them solely, and another to produce the Show pullets, for it is almost impossible to breed both sexes anything like perfect from one pen of birds. A pen of birds which produce the rich beetle-green so much desired in the pullets will invariably throw cockerels with admixture of red on hackles and wings; and, again, it is almost impossible to breed Show cockerels from hens other than those which are dull black in colour, and useless for Show purposes. It is best, therefore, if both sexes are wanted for Exhibition, to mate up two separate breeding pens—one to produce cockerels, the other pullets.

In selecting the breeding stock, great weight must be placed upon the birds on both sides being nearly as perfect in comb as possible. Hollow centres, or wanting work or spikes, or faulty peaks, must be carefully avoided, as half the trouble in breeding Black Rose-combs—or White either, for that matter—lies in the head points, a faulty comb being extremely difficult to get rid of when once it is in a strain. The ear-lobes are equally as important, and must be good on both cock and hens if this point is wished to be perpetuated. The good chickens can be picked out as soon as hatched, those likely to make good ones hatching black on the upper parts, the wings tipped with white, the face more or less white, and white on the throats and bellies; and should any of the chickens turn out entirely black when hatched, they invariably grow up with red or straw feathers throughout the plumage. The Rose-comb Bantam hen is a good layer of fair-sized eggs, and the breed is one of the most jaunty and handsome varieties of the Lilliput family.

White Rose comb Bantams should be pure white in plumage, with white beaks, legs, and ear-lobes; the face and wattles and eyes coral-red, and the cock's sickles and side sickles a good length. In breeding the Whites they may be produced from the one pen, providing that purity of feather, shape, and head points are correct. These birds must be kept out of the rays of the sun, as their plumage soon becomes tanned, thus spoiling them for Exhibition.

The Pekin or Cochin Bantam is a production of the Chinese people, who have cultivated the breed for many centuries. This breed is now exhibited in five different colours, viz., Buff, Black, Cuckoo, Partridge, and White. The whole of the Pekin or Cochin Bantams should be the same shape as the larger Cochins, and should run about one-fifth the average weight of the Cochin. The head should be as small and fine as possible, though stout in beak, with a neat single comb, well serrated, and perfectly erect, though this latter feature is, as a rule, proportionately larger than in the large Cochin. The skin of face, ear-lobes, and wattles must be smooth and fine in texture, and with the comb and face a brilliant red; the eyes should also be as nearly red as possible, though rarely seen. The neck should be full and short, but nicely arched; the carriage of body slightly forward, and the top of the tail as high as the head; the back short and broad,

increasing in breadth to the saddle, which should be very full and rise well from between the shoulders; the wings short, and well tucked up; the tail abundantly furnished with side-hangers, having no hard quill feathers, the true tail being also composed of soft feathers, the quills of which should be fine and thin, and unresisting to pressure. The whole tail should fall nicely in an unbroken curve with the back and saddle; the under-fluff should be very full, and standing well out; the thighs short, broad, and set wide apart; the shanks thick and short, and the whole legs and toes covered abundantly with soft feathers. The hen should have a small head, surmounted by a thin, straight, well-serrated, and perfectly erect comb; ear-lobes, face, and wattles rich bright red; eyes, red or yellow, the former preferred; neck, short, the hackle full and long; body feather very abundant, soft, and fluffy; wings, short and well tucked up at the sides; cushion, globular as possible; tail, extra small, being almost hidden by the cushion feathers; legs, short, the legs, feet, and toes being covered with soft feathers in abundance. The body should be very close to the ground, giving the bird an appearance of plumpness.

Most of the Cochin Bantams rarely develop full shape or full feather till after the first adult moult, the birds at two years making up a lot, so that a bird wanting in cushion or feathering while under a year and a half old should not be discarded, as frequently these birds turn out by far the best.

In selecting Cochin Bantams for breeding, a lot of future success rests on the tail and hock feathers of the stock birds, which should be *soft in the quill*, the feathers having a tendency to curl inwards. This trait is sure evidence of being well bred, especially if accompanied with abundant feathering.

The legs and feet of all Cochin Bantams, except Blacks, should be as yellow as possible, the more leg and toe feathering the better, though the Blacks would look better also with yellow legs, but they are mostly shown with dark legs, which is quite allowable.

In mating the Buff Pekin for colour, a rich, solid-coloured cinnamon cock, mated with clear, even-shaded Buff hens, their whole body colour running two or three shades *lighter* than the cock's breast, will throw chickens all desired, both cockerels and pullets.

If a pair are matched for breeding, such as a cock described with a hen the colour of an ordinary Buff Cochin cock, the cockerels so bred will be far too dark, and the pullets would be almost a dark cinnamon. If the lighter Buffs are mated, the tendency is just the opposite, the chickens each generation becoming lighter and lighter, until they become mealy and worthless.

Black Pekin or Cochin Bantams are, next to the Buffs, the greatest favourites; and, as we remarked, the colour of the legs is but a matter of taste. We, however, incline to the yellow leg, as setting off the plumage better. The latter should be as lustrous as possible—one uniform beetle-green, as seen in the Black Hamburg. The under-feather, or fluff, should be *black* at the roots, the head points corresponding with the other varieties of the Pekin Bantam. In breeding the Black Pekin, the same system of mating to produce cockerels and pullets must be followed as laid down for the breeding of Black Rose-comb Bantams.

Cuckoo Pekin or Cochin Bantams should have yellow legs and beaks; the latter slightly stained is no fault, harmonising with the plumage. The latter in different birds varies considerably—from a pale, almost white ground, with cloudy and indistinct markings, to a beautiful soft French grey ground, with bars of dark slate; of course, the more clearly defined and the finer the markings the better. The marking required in Cuckoo Pekins is a series of clearly-defined bars across each and every feather throughout both cock and hen, the leg and toe feathering being marked exactly the same. The greatest fault the Cuckoo Bantam is liable to is white feathers in the tail and wings, which is very objectionable, and one of the *very hardest faults to breed out* when once it is in a strain. This must be borne in mind when mating Cuckoo Bantams, one of the parent birds at least must be free from the white feathers, or the chickens will be worthless; and, if possible, in selecting birds see that the cock is sound-coloured. The hen being foul-marked will not be of such grave importance.

The Partridge Cochin or Pekin Bantam should be similar in every respect save size to the large Partridge Cochin, that is, the cock should be a perfectly sound glossy black in breast, tail, thighs, and

under-parts; the sickles, tail coverts, and wing-bars, the brightest beetle-green; the neck and saddle hackles, bright golden, each feather distinctly striped in the centre with solid black. The head and top portion of the hackle runs a trifle darker or deeper in colour than at the points. The shoulder butts, black; the wing-bows, shoulder coverts, and back, a deep crimson; the flight coverts or secondaries, bright bay or chestnut. The shank and foot feathering should be a sound, solid black, free from rusty, grey, or white feathers; the legs and feet, yellow. The hen should be a clear, light golden-brown ground colour throughout the breast, body, wings, and leg and foot feathering, and each feather evenly laced, one lacing inside the other, with fine pencilling of black or very dark brown; the greenish-black pencilling, however, looks far the best. The head and hackle feathers are pale golden, each feather clearly and evenly striped down the centre with black. In breeding the Partridge Bantam to Show requirements, it is positively necessary to mate up separate breeding pens to produce the different sexes. To breed cockerels, a cock should be selected which excels in Standard points mated with hens light but very bright in hackle, with quiet-coloured bodies, and lightly laced on wings and feet; but, to breed pullets, a bird perfect in shape and with full feathering, but off-coloured, that is, rusty throughout and very heavily striped in hackles, should be mated with hens of the perfect Standard for the Show pen, and may be relied upon to produce just what is required in the Show pullets.

White Pekin or Cochin Bantams are similar in shape, head points, etc., to the former varieties, but the plumage should be as the name implies—pure spotless white throughout. The best chickens can be selected when first hatched, by picking out those which are of a *greyish or sooty* shade; those which hatch *yellowish* invariably turn out *yellow* when they become adults. The great difficulty is to retain the white plumage for any length of time, which becomes tanned by the sun, so that ample shade must be provided if White Pekin Bantams are intended for the Show pen.

The Brahma Bantams are bred in two colours, as in the large varieties, viz., Light and Dark. Taking the Light variety first, the both sexes should have comb, face, eyes, wattles, and ear-lobes bright red, the comb being neat and close-fitting, and known as triple or pea. The shanks, toes, and beak should be bright yellow. The cock's head and hackle should be pure white, the lower part of the hackle *distinctly striped* with black; the breast and under-parts, shoulders, wings, and back, white; the feathers white to the roots, though at times the fluff is more or less dark. This is not objected to unless it shows through the feather. The saddle hackles should be lightly but evenly striped with black; the leg-feathering should be as white as possible on the surface, but the under-parts of the feathers on legs and toes should be black. The under portion of the primaries and secondaries should be black; this is hidden when the wing is closed. The tail should be black, the top outer feathers and sickles edged all round with a narrow stripe of white.

The hen should be well streaked in hackle with black, the tail being black, with white edging to the upper feathers. The head and whole surface feather of the body should be white; the wing primaries are black, the under side of the secondaries also being black; the shanks and toes abundantly covered with feathers, chiefly white, but what black is noticeable should be very distinct. In carriage they should resemble the typical Light Brahma, but a little more jaunty-looking.

To breed Exhibition cockerels and pullets of this variety also necessitates the mating-up of two distinct pens. To breed cockerels, a Standard-coloured cock or cockerel should be selected, mating him with hens or pullets as white in body as possible, and if only lightly marked in hackle so much the better. To breed pullets, quite a different stamp of bird in colour will be required; in fact, a light or washed-out bird is best, that is, a bird wanting the distinct striping in hackle and saddle, mated with the very darkest-hackled and black-tailed hens with white body and wings it is possible to obtain. A large proportion of the pullets thus bred will be right up to Standard requirements.

Dark Brahma Bantams should be a replica, on a one-fifth scale, of the larger variety; and, in both sexes the comb and head points should be similar to the Lights, except that the beak is horn colour. The cock's head should be silvery-white, the neck hackle white, clearly and boldly striped with black, the stripes

increasing in width as they approach the back. The back, shoulder coverts, and wing-bows, clear silvery-white; the saddle hackle white, heavily striped with black, the stripes becoming wider on the tail coverts. The breast, belly, thighs, shanks, and toe feathers as black as possible for the Show pen; tail black, but if the sickle feathers have a slight edging of white round the feather this is much admired. The wing-butts are black, wing-bars beetle-green, shanks and feet yellow; the wing secondaries, when closed, pure white, with a black spot on the end of each feather; the primaries black, and the under portion of secondaries also black. The hen should be white on the top of the head; the hackle feathers silvery-white, richly striped with black, which becomes broader towards the points. This marking should begin well up at the throat and well up at the back of the neck, on a level with the under side of the eye. This marking is most important in the hen, as any deficiency in this feature is mostly accompanied with insufficient pencilling on the upper portion of the breast. The tail should be black, the top edges of the outer feathers being slightly edged with grey. The rest of the body colour, leg, and feet feathering should be of one uniform shade in the ground colour—a light French grey, with steely-grey pencilling in a concentric form throughout, though many good birds are exhibited which are darker in ground colour, with black pencilling. This latter wears better, and is preferred by many; the main point looked for, however, being uniformity of colour. It also requires two separate breeding pens to produce Standard birds of both sexes in this variety, so that to breed cockerels a Standard cock or cockerel as described should be mated with hens or pullets, neat-headed, good-combed, with lightly marked, silvery hackles, perfectly white on top of head; the body feather lightly pencilled all over, being careful to avoid white feathering in the leg and toe covering. To breed the best pullets, a cock or cockerel should be used clearly striped in hackle, the breast, thighs, and foot feathers evenly ticked, silvery back, saddle, and wing-bow, well-striped saddle hackles, and with as much foot-feathering as possible, but not vulture-hocked. This bird should be mated with the highest Standard-marked hens, and the pullets so bred will be of high quality.

Booted Bantams are many and various, such as White, Black, White-Whiskered, Speckled Black and White, Speckled Red, Dutch-Bearded, Booted, etc. These Bantams are of very ancient origin, the White especially being a very old breed. They should have white beaks and legs to match the plumage, with the exception of the Blacks, the comb in both sexes being single, upright, and well serrated; the comb, face, ear-lobes, and wattles being perfectly red, the shanks and toes heavily feathered, the longer and more closely feathered the better. The hock feathers in this breed should be so long as to touch the ground when the bird walks. The wings are very long, and carried in a drooping position. This applies to both sexes. The cocks' tail should have abundant sickle feathers, the tail carried higher than the head, the hen also having a large tail, carried in a perpendicular position. Both sexes can be bred for Exhibition from specimens up to Standard requirements.

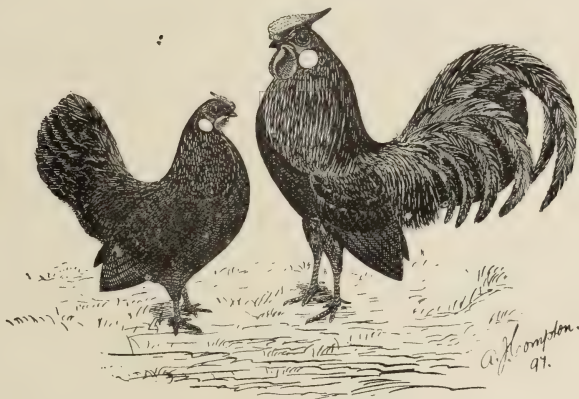
The White-Whiskered Booted are similar in every respect to the White-Booted variety, with the exception of both sexes having a growth of bushy feathers on the sides of the face and throat similar to a beard and whiskers.

Black-Booted Bantams are identical in head points with the White-Booted, but their beaks and legs are black, the whole plumage being a bright, lustrous beetle-green. The same rules followed as given for the breeding of Black Rose-comb Bantams will be necessary to keep up brilliancy of plumage in both sexes.

The Speckled, Splashed, and Spangled Booteds are sub-varieties of colour, and what is chiefly looked for in these are harmony of colour, correct shape, form, and carriage.

Sultan Bantams are one of the quaintest and most attractive varieties of Minnikin Fowls. The plumage is white and flowing, the head surmounted by a perfect crest, a muff and whiskers of feathers on the throat and sides of face, the tail full and flowing, the legs, thighs, and feet well feathered; they are adorned with five toes on each foot. The comb is very small, consisting of two small points. The Sultan Bantams are very brisk and active in their movements, and of a very docile disposition, are good layers and small eaters, and as an ornamental variety of Poultry are specially suitable for lady Fanciers.

Black Rose-comb Bantams.



Silver-Laced Sebright Bantams.

THE BLACK ROSE-COMBED COCK—"Rex."
Winner of 1st Orange, 1st Cootamundra, 1st Penrith, and 1st and
Special, Poultry Club of N.S.W.

HEN.
1st Poultry Club of N.S.W.

Both bred and owned by the Proprietors of the Bonaventure Poultry Farm, Mount Druitt, N.S.W.

There are numerous other varieties of Bantams, which, however, are little cultivated, except in the countries where they originated, such as the Burmese, etc.

Sebright Bantams can lay claim to being quite as popular as any of the Lilliputian tribes of Fancy Poultry. The Sebrights are bred in three colours—Silver, Gold, and Creamy. The former are the most fashionable, and to the late Sir John Sebright, Bart., is credited their production. This gentleman devoted many years of his life with unflinching energy and spirit in blending and manipulating various crosses to produce this beautiful and unique variety. It is now, at time of writing, merging into the hundredth year since first the experiments were started from which the Sebright Bantam evolved.

The Silver Sebrights in both sexes should be pure silvery-white in ground colour, with each feather distinctly and evenly laced with bright green-black. This lacing should be a uniform width throughout the whole of the feathers. The legs and feet should be slaty-blue; the combs should be rose; the face, wattles, and ear-lobes, purplish. In appearance they are short-backed, short-legged, very compact; the chest, carried prominently; the wings, well drooping; and the head thrown back, almost touching the tail, the latter carried high and open, so as to show the clear ground colour, and distinct lacing of each feather; the whole of the body, tail, and hackle feathers, short, and the cock feathered exactly like the hen, that is "hen-feathered." In breeding the Sebright Bantams, perfect specimens on either side will not do for mating together, as the markings would become lost in a few generations. It is imperative that on one side the stock bird should be too heavy and dark in lacing for Exhibition purposes. By this means the lacing as required is retained.

The Golden Sebrights are, in both sexes, similar in head points, beak, feet, and legs to the Silver variety, their ground colour being what is termed a light, bright golden-bay, the feathers being laced precisely like the Silvers. They are, however, much more difficult to breed to Standard markings than the Silvers, the cocks often failing in tail and breast markings up near the throat, and on the wing ends. These should also be mated on the same lines as the Silvers, using a rather heavily-laced and deeper ground-coloured bird on one side. One great drawback to the breeding of these beautiful pets is the sterility of many of the very best cocks, and when this is noticed, a brother to him may with safety be used which has a tendency to grow sickle feathers in the tail, a bird of this description being of the greatest value for the breeding pen, though useless for Show purposes.

Creamy Sebrights are chiefly used to tone down the colour of the darker-coloured Golden, in themselves not being so highly prized for Exhibition, though at one time this colour was when of the lighter shades, called Silvers; but a Silver Sebright to win now in good competition must be silvery-white in ground colour of the plumage.

Cuckoo Bantams are one of the prettiest breeds of the whole Bantam family. They are bred in two varieties—viz., single and rose-combed. In the single-combed variety in both sexes the comb should be erect, upright, and well serrated, and red in colour; the eyes, face, wattles, and ear-lobes, red; the legs, white, slightly mottled on the scales. The ground colour of plumage, a pale French grey, evenly marked in both sexes with bars of a dark slate colour. The clearer and more distinct the ground colour and markings the better, white or black feathers in plumage being very objectionable, and a disqualification. To breed Cuckoo Bantams, a cock should be used which is rather dark in colour, but as fine in the bar markings as possible, mated with hens or pullets as near the Standard requirements as possible. The Rose-Combed variety are not so highly esteemed, the Single-Combed having a smarter appearance, resembling the large Scots Grey in miniature.

Polish Bantams have also been produced in Black, White, Buff, Gold, Silver, Creamy, Cuckoo, Blue, White-Crested Black, and White-Crested Blue, but are not cultivated to any great extent. They should resemble in miniature the Polish Fowls.

Japanese Bantams.—The chief of these are the Dark-Tailed White-Bodied and the Pure Blacks. The former are the most common, of which we have seen numbers of good specimens imported to this country,

and inspected many that were bred here from imported birds. The cock should be white throughout the body feathers; the tail, bright greenish-black; the sickle feathers and tail coverts, black, with a clear and very distinct edging of white right round the feather, the sickles being long and extremely pointed. The legs and beak in both sexes should be bright yellow; the comb (single and erect), face, wattles, and ear-lobes, bright red. The underneath portions of the secondary wing-feathers are black, and the primaries black. The legs are entirely hidden by the body in both sexes, giving them the appearance of squatting on the ground, the tips of the toes in good specimens alone being visible. The hen to match is similar in shape and markings, making allowance for difference in sex. The carriage of the tail in both sexes is perfectly upright, the tips much higher than the head. Next to these are the *Blacks*, which are identical in shape and head points, the whole plumage in both sexes being of the brightest beetle-green colour.

Frizzled Bantams are bred in a large variety of colours, their peculiarity being that the whole of the feathers are curled upwards and forwards, no Standard as to comb being fixed, though indisputably uniformity should be recognised in this point as in other Fancy varieties. Of the various colours which are at times exhibited the Whites are the most attractive, but, whatever colour is shown, the legs and beaks should match the plumage.

Nankin Bantams are one of the very earliest varieties of the Bantam family exhibited. They have various combs, and differ to a great extent in the colour of the legs. The proper colour of the Nankin cock is dark cinnamon throughout, with the exception of the tail and wing-flights, the former often being bronzy-black, the latter invariably black. The hen is a clear buff in body colour; the hackle should be as free as possible from ticking of black. The tail of the hen is more or less of a bronzy-black, the primaries being dark, also the under side of secondaries. The hens of this variety are good layers of fairly large eggs, good sitters and mothers, and, being of such a quiet disposition, make pretty and attractive, and at the same time fairly remunerative, pets about the Poultry yard.

SCHEDULE FOR JUDGING VARIETY BANTAMS.

In Judging all of the Bantam breeds, a one-fifth scale should be used of the large breeds, and on this scale we give a standard weight for cock and cockerel and hen or pullet, where it is practicable to estimate the same. In any case they should not *exceed* the weights stated beyond an ounce or two at most, though they may be *slightly* less, but in the latter instance much risk is attached to the birds being bred so *small* that they become *useless* for the reproduction of their species.

SCHEDULE FOR JUDGING ROSE-COMB BANTAMS.

GENERAL CHARACTERISTICS OF THE COCK.

Comb.—Rose, broad at front, full of points or work on top, finishing off with a neat spike or leader behind, the spike pointing slightly upwards; *Head*, short, and fairly broad; *Beak*, short, and slightly curved; *Eyes*, full; *Face*, smooth; *Ear-lobes*, flat, smooth, and as round as possible; *Wattles*, round, and fine in quality; *Neck*, short and slightly arched, the feathers long and flowing, spreading well over the back; *Back*, fairly long and broad, the saddle hackles abundant; *Tail*, large, well spread out, fairly upright, well furnished with broad, long sickles and secondary sickles; *Wings*, large, and carried in a slightly drooping position; *Breast*, broad, full, and prominent; *Thighs*, short; *Legs*, short and slender; *Feet*, small, the toes perfectly straight, well spread out, and slender; *General Shape and Carriage*, smart, compact, active and graceful nervous and tremulous; *Weight*, cockerel, 1 lb.; cock, 1 lb. 4 oz.

GENERAL CHARACTERISTICS OF THE HEN.

The hen should resemble the cock in all points, making allowance for difference in sex. *Weight*.—Pullets, 14 oz.; hens, 1 lb. 2 oz.

COLOUR POINTS IN BLACK ROSE-COMB BANTAMS—COCK AND HEN.

Comb, Face, and Wattles.—Bright, rich red.

Ear-lobes.—White.

Eyes.—Dark red or bright red.

Beak.—Dark horn colour.

Legs and Feet.—Black as possible when young, dark slate colour after the second year.

Plumage.—Bright greenish-black throughout, as lustrous as possible.

COLOUR POINTS IN WHITE ROSE-COMB BANTAMS—COCK AND HEN.

Comb, Face, and Wattles.—Rich, bright red.

Ear-lobes.—White.

Eyes.—Bright red.

Beak.—White.

Legs and Feet.—White.

Plumage.—White.

SCALE OF POINTS FOR ROSE-COMB BANTAMS.

A bird perfect in shape, style, colour, size, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad comb	20
Stained ear-lobes or white in face ..	20
Insufficient length of feather	10
Bad colour	15
Bad shape and carriage	10
Want of Symmetry	10
„ „ Condition	10
Incorrect size and weight	5
	100

DISQUALIFICATIONS.

Single comb, red ear-lobes, crooked tail or back, squirrel tail ; any other colour of plumage than brilliant greenish-black in Blacks, or pure white in Whites.

SCHEDULE FOR JUDGING PEKIN OR COCHIN BANTAMS.

GENERAL CHARACTERISTICS OF THE COCK.

Head.—Neat and small ; *Comb*, single, small, straight, and erect, well serrated, and nicely curved from beak to the back ; *Beak*, short, stout, and slightly curved ; *Eyes*, bright and large ; *Face*, smooth and fine in texture ; *Wattles*, large, long, smooth and fine in texture, well rounded ; *Ear-lobes*, smooth, well-developed, fine in texture, almost as long as the wattles ; *Neck*, short, well furnished, neatly arched, and carried well forward ; *Hackle*, abundant, reaching well on to the back ; *Back*, short and broad, widening to the saddle, which should be full, rising well from the shoulders, well furnished with soft feathers ; *Wings*, short, small, neatly tucked up, the ends hidden by the saddle hackles ; *Tail*, very short, full, and soft, the quill feathers soft ; *Tail Coverts*, ample, and nicely curved, almost hiding the tail, the whole tail forming a graceful and unbroken curve with the back and saddle ; *Breast*, wide, deep, full, and rounded in appearance ; *Thighs*, short, stout, and wide apart ; *Hocks*, completely covered with soft, curling feathers, which stand well out ; *Legs*, short and stout, and well furnished with soft feathers, standing well out ; *Feet and Toes*, stout and straight, the centre and outer toes covered with feathers to the tips, and as abundant as possible ; *Plumage*, very abundant, long, and soft, the *stiff* being full between the saddle and thighs, almost hiding the thighs ; *General Shape and Carriage*, broad, deep, plump, and well rounded, the body carried forward, but low, the head being a trifle higher than the tail ; *Weight*, cockerel, 2 lbs. ; cock, 2 lbs. 4 oz.

GENERAL CHARACTERISTICS OF THE HEN.

The hen should resemble the cock in all points, making allowance for difference in sex. *Weight*.—pullets, 1 lb. 12 oz. ; hens, 2 lbs.

COLOUR POINTS IN BUFF PEKIN BANTAMS.

COCK.

Comb, Face, Wattles, Ear-lobes, and Eyes.—Bright red.

Beak.—Yellow.

Head and Neck Hackle.—Rich, sound, bright golden buff.

Back, Wing-bows, Shoulder Coverts, and Saddle Hackle.—Rich, bright golden buff.

Tail.—Bright golden buff, free from black, white, or bronze feathers.

Remainder of Plumage.—One uniform shade of golden buff, right to the roots of the feathers.

Legs and Feet.—Yellow.

HEN.

The hen should match the cock throughout, and as Buff Pekins are of three recognised shades of colour, viz., *Lemon-Buff, Buff,* and *Cinnamon*, of whichever shade the cock is, the hen to match must be the same.

COLOUR POINTS IN BLACK PEKIN BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Red or yellow, the former preferred.

Beak.—Dark horn colour, or black with a yellow tinge.

Legs and Feet.—Yellow preferred. Dark legs, with soles of the feet and under the toes yellow, is allowed.

Plumage.—A beautiful lustrous, uniform beetle-green black, *black* at the roots of the feathers.

COLOUR POINTS IN CUCKOO PEKIN BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Red.

Beak.—Yellow, or yellow slightly stained with horn colour.

Plumage.—Pale French grey ground colour, each feather throughout the body distinctly and evenly barred across with parallel lines of a *dark* slate colour; the markings fine and regular.

Legs and Feet.—Bright yellow.

COLOUR POINTS IN PARTRIDGE COCHIN BANTAMS.

COCK.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Red or orange, the former preferred.

Beak.—Yellow, slightly stained with horn colour.

Head.—Deep orange-red.

Neck Hackle.—Bright orange, shading off lighter towards the shoulders, the centre of each feather distinctly striped with deep black.

Back, Wing-bows, and Shoulder Coverts.—Deep, rich crimson.

Wing-butts.—Black.

Tail Coverts.—Sound greenish-black.

Primaries and Secondaries.—Bay on the outer web, black on the inner.

Saddle Hackle.—Bright orange, the centre of each feather distinctly striped with solid black.

Tail.—Lustrous greenish-black.

Breast, Thighs, and Under-parts.—Sound black, with as much sheen as possible.

Shank and Foot Feather and Fluff.—Sound black, free from rusty or other coloured feathers.

Legs and Feet.—Yellow.

HEN.

The hen should match the cock in *Comb, Face, Wattles, Ear-lobes, Eyes, Beak, Legs, and Feet.*

Head and Neck Hackle.—Straw-coloured, or light golden; the centre of each feather distinctly striped with black.

Remainder of Plumage.—Clear, light, golden-brown colour, accurately pencilled all over with concentric rings of a glossy green-black shade, and as uniform in marking as possible.

COLOUR POINTS IN WHITE COCHIN BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Red, or orange—the former preferred.

Beak.—Yellow.

Plumage.—Pure spotless white throughout.

Legs and Feet.—Yellow.

SCALE OF POINTS FOR PEKIN OR COCHIN BANTAMS.

A bird perfect in shape, style, colour, size, and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head and comb	...	...	...	...	...	...	...	...	...	10
Want of cushion and fluff	...	...	...	...	...	...	...	...	...	15
Too long in leg	...	...	...	...	...	...	...	...	...	10
Want of foot and leg-feathering	...	...	...	...	...	...	...	...	...	10
Bad colour	...	...	...	...	...	...	...	...	...	20
Bad carriage and shape	...	...	...	...	...	...	...	...	...	15
Bad condition	...	...	...	...	...	...	...	...	...	10
Incorrect size and weight	...	..	...	...	...	...	...	...	...	10
										100

DISQUALIFICATIONS.

Twisted or drooping comb, legs any other colour than yellow (with the exception of the Blacks), slipped wing, crooked breast, crooked back or wry tail, or any other bodily deformity; birds not matching in colour when exhibited in pairs; any fraudulent dyeing, plucking, dressing, or trimming.

SCHEDULE FOR JUDGING BRAHMA BANTAMS.

GENERAL CHARACTERISTICS OF THE COCK.

Comb.—Pea or triple, as small as possible, erect, and firmly set on the head, the centre ridge slightly highest, the three ridges straight, and evenly serrated. *Head.*—Small, and well rounded, medium in breadth, short, the eyebrows slightly prominent. *Beak.*—Strong, stout, and curved. *Eyes.*—Large, and well set in the head. *Face.*—Smooth, with mild expression. *Wattles.*—Smooth, well rounded, small and fine in texture, free from hairs or feathers. *Ear-lobes.*—Rather long in proportion to the wattles, fine and smooth, and free from feathers. *Neck.*—Long, well arched, showing a slight depression between the head and upper hackle feathers. *Hackle.*—Abundant, and flowing well over the shoulders. *Back.*—Broad, short, and flat, the *saddle* rising gradually from the middle of the back to the tail coverts. *Wings.*—Medium in size, and well tucked up to the body. *Tail.*—Medium in length, full, well spread, and carried at a good elevation. *Tail Coverts.*—Abundant, and nicely curved. *Breast.*—Very deep, full, broad, and carried well forward. *Thighs.*—Large, powerful, and heavily feathered. *Hocks.*—Well covered with soft, curling feathers, or with stiff feathers, called vulture hocks, providing the foot and shank feathering is in unison. *Legs.*—Medium length, strong and wide apart, well and evenly scaled, well covered with feathers. *Feet and Toes.*—Large, straight, and well spread; feathered to the extremities of the centre and outer toes. *Plumage.*—Very

abundant, soft, and long; the fluff standing well out from the thighs, covering the hinder parts. *General Shape and Carriage*.—Broad, massive, compact, deep, and the carriage noble and commanding. *Weight*.—Cockerels, 2 lbs. ; cocks, 2 lbs. 6 oz.

HEN.

The hen should resemble the cock in all points, making allowance for difference in sex. *Weight*.—Pullets, 1 lb. 12 oz. ; hens, 2 lbs.

COLOUR POINTS IN LIGHT BRAHMA BANTAMS.

COCK.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Red or yellow, the former preferred.

Beak.—Yellow, or yellow stained with horn colour.

Head.—Pure silvery-white.

Neck Hackle.—Silvery-white, striped with solid black, becoming denser towards the bottom.

Saddle Hackle.—Silvery-white, slightly but evenly striped with black.

Primaries.—Black, or black edged with white.

Secondaries.—White on the outer web, black on the inner.

Tail.—Black.

Tail Coverts and Sickles.—Glossy-black, slightly but evenly edged with white.

Legs and Foot Feathers.—White as possible on the surface, but with distinct black in the under-parts of the feather.

Legs and Feet.—Yellow.

Remainder of Plumage.—White if possible to the roots of the feathers. Often the fluff is dark, and if it does not show through the feather it is not objected to.

HEN.

The hen should match the cock in head, comb, face, wattles, ear-lobes, eyes, beak, legs, and feet.

Neck Hackle.—Silvery-white, striped with black in the centre, this stripe *entirely surrounded* with a white margin.

Tail.—Black.

Tail Coverts.—Black, with a white edge, or margin, round the feather.

Primaries.—Black, or black edged with white.

Secondaries.—White on the outer web, and black on the inner.

Leg and Foot Feathers.—Chiefly white, but what black is visible should be distinct.

Remainder of Plumage.—Pure silvery-white, free from ticks or markings on the surface; white to the roots is preferred, but dark fluff is allowed if it *does not show through the feather*.

COLOUR POINTS IN DARK BRAHMA BANTAMS.

COCK.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Head.—Silvery-white.

Eyes.—Red or yellow—the former preferred.

Beak.—Dark horn colour.

Neck Hackle.—Silvery-white, striped distinctly with brilliant black, the marking increasing in breadth towards the shoulders and back.

Back and Shoulder Coverts.—Silvery-white, except between the shoulders, where the feathers should be black, edged with white.

Wing-butts and Shoulders.—Brilliant black.

Wing-bows.—Silvery-white.

Wing-bars.—Rich beetle-green black.

Primaries.—Black.

Secondaries.—White on outer web, with a black spot on the end of the feather, black on the inner web.

Saddle Hackle.—Silvery white, well striped with lustrous black, the stripes increasing in width on to the tail coverts.

Tail.—Black.

Tail Coverts and Sickles.—Glossy beetle-green black, the two top sickle feathers edged all round with white.

Breast, Thighs, and Under-parts.—Brilliant black.

Legs and Foot Feathers.—Black as possible.

Legs and Feet.—Yellow.

HEN.

The hen should match the cock in head points, beak, legs, and feet.

Neck Hackle.—Silvery white, each feather striped in the centre with rich black, this marking to come well up to the throat, and nearly level with the eye at the back part of the neck.

Tail.—Black, the top outer feathers edged with grey.

Remainder of Plumage.—A light French grey ground colour, pencilled with steel-grey, or a steel-grey pencilled with sound black. In either case the ground colour must be uniform throughout, the pencilling being in concentric rings following the outline of the feather, this marking to be as clear and distinct as possible, the shank and toe feathering being marked similarly.

SCALE OF POINTS FOR BRAHMA BANTAMS.

A bird perfect in shape, style, colour, size, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head and comb	...	...	...	...	...	...	...	...	...	10
Want of fluff and cushion	...	...	...	...	...	...	...	...	...	15
Want of leg and foot-feathering	...	...	...	...	...	...	...	...	...	10
Bad carriage and shape	...	...	...	...	...	...	...	...	...	15
Bad colour	...	...	...	...	...	...	...	...	...	20
Want of Symmetry	...	...	...	...	...	...	...	...	...	10
„ „ Condition	..	...	...	...	...	...	...	...	...	10
Incorrect size and weight	...	...	...	...	...	...	...	...	...	10
										100

DISQUALIFICATIONS.

Comb other than triple or pea, legs any colour but yellow, twisted hackle ; crooked back, crooked breast, or any other bodily deformity ; any fraudulent dyeing, dressing, or trimming ; when shown in pairs, birds not matching in the Show pen.

SCHEDULE FOR JUDGING BOOTED BANTAMS.

GENERAL CHARACTERISTICS OF THE COCK.

Comb.—Single, medium size, erect, straight, and well serrated.

Head.—Small and neat.

Face.—Smooth ; the skin fine in texture.

Eyes.—Large, bright, and prominent.

Beak.—Medium in length, rather stout.

Ear-lobes.—Small and neat.

Wattles.—Small, round, and close.

Neck.—Rather short, well arched ; the head carried well back.

Breast.—Full and prominent.

Wings.—Long, large, and carried in a drooping position.

Back.—Short.

Tail.—Large, long, and full, carried well over the back, and abundantly furnished with sickles.

Tail Coverts.—Abundant, and neatly curved.

Thighs.—Short, and heavily feathered.

Legs.—Rather short and heavily feathered; the hock feathers almost touching the ground.

Feet and Toes.—Well spread and straight, the middle and outer feathers heavily furnished.

Plumage.—Long and abundant.

Carriage.—Erect and strutting.

Weight.—Cockerels, 1 lb. 4 oz.; cocks, 1 lb. 10 oz.

HEN.

The hen should resemble the cock in all points, making allowance for difference in sex. *Weight*.—Pullets, 1 lb.; hens, 1 lb. 6 oz.

COLOUR POINTS IN WHITE BOOTED BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Red.

Beak and Legs.—White.

Plumage.—Pure white throughout.

COLOUR POINTS IN BLACK BOOTED BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Beak.—Black, or the darkest horn colour.

Eyes.—Dark red or brown.

Legs and Feet.—Dark.

Plumage.—Black, with as bright and lustrous a sheen as possible.

COLOUR POINTS IN SPANGLED BOOTED BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes. Bright red.

Beak.—Horn colour.

Eyes.—Dark red or brown.

Legs and Feet.—Dark.

Plumage.—Black and white, red and white, or black, white, and red, evenly distributed throughout.

SCALE OF POINTS FOR BOOTED BANTAMS.

A bird perfect in shape, style, colour, size, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head, face, and comb	15
Bad colour of plumage	20
Bad colour of legs and beak	10
Want of leg and foot-feather	15
Want of Symmetry	15
„ „ Condition	10
Incorrect size and weight	15
	—
	100

DISQUALIFICATIONS.

Any other than single comb, any bodily deformity; any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING SULTAN BANTAMS.
GENERAL CHARACTERISTICS—COCK AND HEN.

Crest.—Large, full, compact, and globular.

Comb.—Small, being two very small spikes, which are almost hidden by the crest.

Beak.—Short and curved.

Eyes.—Bright and sparkling.

Muffling and Beard.—Very full and compact.

Wattles and Ear-lobes.—Very small and neat, the lobes being hidden by the muffling.

Neck.—Rather short, well arched, and well covered with feathers.

Back.—Short and straight.

Wings.—Rather short, and carried in a drooping position.

Tail.—The cock's tail should be full, with long, flowing sickles; the hen's rather large, and well expanded. Both sexes should carry the tail high.

Breast.—Deep, full, and prominent.

Thighs.—Short, covered with feathers, called "vulture-hocked."

Legs and Feet.—Short, and well covered with abundant feathers to the ends of the toes; the toes five in number on each foot.

Plumage.—Long, soft, and very abundant.

General Shape and Carriage.—Very neat, deep, and compact; the carriage, smart and lively.

Weight.—Cockerels, 1 lb.; cocks, 1 lb. 4 oz.; hens, 12 to 14 oz.

COLOUR POINTS IN SULTAN BANTAMS—COCK AND HEN.

Comb and Wattles.—Bright red.

Beak.—White.

Eyes.—Red.

Legs and Feet.—White, or pinky white.

Plumage.—Pure spotless white throughout.

SCALE OF POINTS FOR SULTAN BANTAMS.

A bird perfect in shape, style, size, colour, and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad shape or too small crest	...	...	...	...	...	...	...	...	15
Want of beard and muffling	...	...	..	...	...	...	...	...	10
Want of leg and foot-feathering	...	...	...	...	...	...	...	...	15
Legs wrong colour, or too stilty	...	...	...	...	...	...	...	...	10
Bad colour of plumage	...	...	...	...	...	...	...	...	20
Want of Symmetry	...	...	...	...	...	...	...	...	12
„ „ Condition	...	...	...	...	...	...	...	...	8
Incorrect size and weight	...	...	...	...	...	...	...	...	10
									100

DISQUALIFICATIONS.

Coloured feathers in plumage, wry tail, crooked breast, or any other bodily deformity; entire absence of foot feathers; any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING SEBRIGHT BANTAMS.

GENERAL CHARACTERISTICS—COCK AND HEN.

Comb.—Rose, broad in front; the centre full of work, or spikes, as even as possible, the comb tapering to the back, and finishing off with a spike, or leader, behind. The comb should be firmly set on the head, and pointing slightly upwards.

Head.—Small, neat, and carried well back.

Eyes.—Bright, full, and prominent.

Beak.—Rather short.

Face.—The skin fine and smooth.

Ear-lobes.—Smooth, soft, and of medium size.

Wattles.—Medium size, and well rounded.

Neck.—Rather short and thick, well arched.

Back.—Short and flat.

Wings.—Large, carried low, and in a drooping position.

Tail.—Large, carried high and open, so as to show every feather.

Breast.—Full, and prominent.

Thighs.—Short.

Legs.—Short, slender, and evenly scaled.

Feet and Toes.—Straight, slender, and well spread out.

Plumage.—Short, and well rounded at the ends. The both sexes are feathered exactly alike, the cock having neither sickles nor saddle hackles.

General Shape and Carriage.—Neat, vain, jaunty and mincing, nervous and tremulous.

Weight.—Cockerels, 1 lb. 2 oz. ; cocks, 1 lb. 6 oz. ; pullets, 1 lb. ; hens. 1 lb. 2 oz.

COLOUR POINTS IN SILVER SEBRIGHT BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Dark mulberry, or purple.

Eyes.—Black, or as dark as possible.

Beak.—Dark horn colour.

Legs and Feet.—Slaty-blue.

Plumage.—Pure silvery-white in the ground colour throughout, each feather distinctly and evenly laced with rich satiny-greenish black.

COLOUR POINTS IN CREAMY SEBRIGHT BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Dark mulberry, or purple.

Eyes.—Black, or as dark as possible.

Beak.—Dark horn colour.

Legs and Feet.—Slaty-blue

Plumage.—Creamy-white in the ground colour throughout, each feather distinctly and evenly laced with rich greenish-black.

COLOUR POINTS IN GOLD SEBRIGHT BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Dark mulberry, or purple.

Eyes.—Black, or as dark as possible.

Beak.—Dark horn colour.

Legs and Feet.—Slaty-blue.

Plumage.—Bright golden-bay in the colour throughout, each feather distinctly and evenly laced with rich greenish-black.

SCALE OF POINTS FOR SEBRIGHT BANTAMS.

A bird perfect in shape, size, style, colour, and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Comb	10
„ Face and ear-lobes	10
Splashed tail... ..	15
Defective lacing	25
Faulty ground colour	20
Want of Symmetry	5
„ „ Condition	10
Incorrect size and weight	5
	100

DISQUALIFICATIONS.

Single comb, wry tail, crooked breast, or any other bodily deformity ; feathers on legs, sickle feathers in the cocks, or any feathers entirely devoid of lacing.

SCHEDULE FOR JUDGING CUCKOO BANTAMS.

GENERAL CHARACTERISTICS—COCK AND HEN.

Comb.—Perfectly erect, and either single or rose ; but a single comb of medium size and well serrated preferred.

Head.—Of fair length, and narrow.

Face.—Smooth, and fine in texture.

Eyes.—Bright, and sparkling.

Beak.—Short, stout, and slightly curved.

Ear-lobes.—Smooth, round, and neat.

Wattles.—Moderate in size, and nicely rounded.

Neck.—Fair length, the cock's hackle full and flowing.

Back.—Rather short, straight, and broad across the shoulders.

Wings.—Medium in size, and carried well tucked up, and close to body.

Tail.—The cock's, large, full, and abundantly furnished with nicely curved sickles and side sickles, carried slightly backward ; the hen's, large and full, and carried more upright.

Breast.—Hard, full, and round.

Thighs.—Rather long, set well apart.

Legs.—Medium in length, neat, and slender.

Feet.—Medium length, the toes well spread out.

Plumage.—Abundant, the feathers very broad.

General Shape and Carriage.—Light-looking, smart, and erect.

Weight.—Cockerels, 1 lb. ; cocks, 1 lb. 4 oz. ; pullets, 14 oz. ; hens, 1 lb. 1 oz.

COLOUR POINTS IN CUCKOO BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Bright red.

Beak.—White, or horn colour ; white preferred.

Plumage.—Light French grey ground colour, evenly and distinctly marked across with dark slaty-grey ; black or white feathers are very objectionable.

Legs and Feet.—White, or white spotted with black on the scales.

SCALE OF POINTS FOR CUCKOO BANTAMS.

A bird perfect in shape, style, size, colour, and condition to count 100 points.

The Australasian Book of Poultry.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head and comb	..	...	...	...	...	...	...	...	15
White in ear-lobes	...	...	...	...	...	...	...	...	10
Bad Colour and markings	...	...	...	...	...	...	...	...	25
„ Feet	...	...	...	...	...	...	...	...	10
Want of Symmetry	...	...	...	...	...	...	...	...	15
„ „ Condition	...	...	...	...	...	...	...	...	15
Incorrect size and weight	...	...	...	...	...	...	...	...	10
									100

DISQUALIFICATIONS.

White ear-lobes, legs other than white or mottled ; red, white, or black feathers in plumage ; any bodily deformity ; any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING POLISH BANTAMS.

GENERAL CHARACTERISTICS—COCK AND HEN.

Crest.—As large, full, and globular in form as possible, rising upright from the head, and crescent-shaped in outline. The hen's crest should be very round, and compact.

Head.—Of medium size, but hidden by the crest.

Eyes.—Bright, full, and sparkling.

Beak.—Medium in size.

Comb.—Composed of two small spikes, or horns, completely hidden by the crest.

Ear-lobes.—Small, neat, and almost round in the White-crested variety ; but hidden by the *muffling* in the other varieties.

Wattles.—Rather long and pendent in the White-crested variety. but hidden by the *beard* in the other varieties.

Neck.—Moderate in length, upright, and the cock's abundantly furnished with hackle feathers.

Back.—Straight, moderate in length.

Wings.—Large and long, but well tucked up.

Tail.—Large, and full ; the cock's carried nearly upright, the hen's more opened or fanned.

Breast.—Hard, full, and round.

Thighs.—Short.

Legs.—Moderate in length, neat, and slender.

Feet.—Well spread ; the toes, straight and slender.

General Shape and Carriage.—Slight, neat, erect, and vain.

Weight.—Cockerel, 1 lb. 1 oz. ; cock, 1 lb. 6 oz. ; pullet, 14 oz. ; hen, 1 lb. 2 oz.

COLOUR POINTS IN GOLD POLISH BANTAMS.

COCK.

Crest.—Black at the root of each feather, bright golden-bay in the centre, tipped with black at the ends, and as free from white as possible.

Beard and Whiskers.—Black, laced with golden-bay during the first year, afterwards changing to golden-bay, laced with black.

Hackle.—Rich bay, tipped with black.

Saddle.—Bright rich dark bay, tipped with black.

Wing-bows.—Deep rich bay, spotted with black.

Wing Coverts.—Golden bay, each feather laced with black, showing two distinct lines across the wings.

Primaries and Secondaries.—Golden-bay, laced with black.

Breast, Thighs, Back, and Shoulder Coverts.—Golden-bay, each feather distinctly laced, and spangled at the tips with black.

Tail.—Golden-bay, laced with black, and heavily spangled at the tips with black.

Sickle Feathers.—Rich bronze, with golden-bay centre, evenly laced with glossy black, and well spangled at the tips.

Tail Coverts.—Rich bronze or golden-bay, laced all round with glossy black.

Legs and Feet.—Blue.

HEN.

Crest.—During the first year black, well laced with golden-bay, and free from white feathers the first year ; afterwards, golden-bay, laced with black.

Beard and Whiskers.—The same as the crest.

Neck.—Golden-bay, each feather distinctly laced at the end with black.

Wing Coverts, Primaries, and Secondaries.—Golden-bay, evenly laced with black.

Tail.—Golden-bay, heavily laced with black, the lacing broader at the tips.

Remainder of Plumage.—Clear golden-bay, evenly and distinctly laced, or spangled with black.

Legs and Feet.—Blue.

COLOUR POINTS IN SILVER POLISH BANTAMS—COCK AND HEN.

Plumage.—Pure white ground colour, laced and spangled with black, the markings being exactly the same as those described for the Golden variety ; in all other points, exactly similar.

COLOUR POINTS IN CHAMOIS POLISH BANTAMS.

Plumage.—Clear golden-bay ground colour, *laced and spangled* with *white*, the markings being exactly the same as those described for the Golden variety ; in all other points, exactly similar.

COLOUR POINTS IN WHITE-CRESTED BLACK POLISH BANTAMS—COCK AND HEN.

Crest.—Pure white, as free from black feathers as possible.

Face and Wattles.—Bright red.

Ear-lobes.—Pure white.

Remainder of Plumage.—Sound black, as rich and lustrous as possible.

Legs and Feet.—Blue and black.

COLOUR POINTS IN BLACK, WHITE, BUFF, CREAMY, CUCKOO, BLUE, AND WHITE-CRESTED BLUE POLISH BANTAMS.

The Plumage of all these varieties should be as pure and even in colour as possible, the legs and feet of all being blue.

SCALE OF POINTS FOR POLISH BANTAMS.

A bird perfect in shape, style, size, colour, and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Want of Shape or size in crest	...	...	...	...	...	...	...	20
„ „ Muffling	...	...	...	...	...	...	...	10
Too much comb	...	...	...	...	...	...	...	15
Defective colour and marking	...	...	...	...	...	...	...	25
Want of Symmetry	...	...	...	...	...	...	...	10
„ „ Condition	...	...	...	...	...	...	...	10
Incorrect size and weight	...	...	...	...	...	...	...	10

DISQUALIFICATIONS.

Bodily deformity of any kind, absence of mufiling (except in White-Crested Blacks), legs any other colour than blue; any fraudulent dyeing, dressing, or trimming; when shown in pairs, birds not matching in the Show pen.

SCHEDULE FOR JUDGING JAPANESE BANTAMS.
GENERAL CHARACTERISTICS—COCK AND HEN.

Comb.—Single, perfectly erect, straight, and well serrated.

Head.—Medium in size, carried well up.

Face.—Smooth and fine.

Eyes.—Large and bright.

Beak.—Short and stout.

Ear-lobes.—Medium in size, and neat.

Wattles.—Large and well rounded.

Neck.—Short, and carried well back; the cock's hackles full and flowing.

Back.—Short and broad; the saddle hackles of the cock abundant.

Wings.—Large, long, and broad, carried in a very drooping position.

Tail.—Large, long, and carried perfectly erect; the cock's tail abundantly furnished with long, fine sickles and coverts.

Breast.—Full, well-rounded, and prominent.

Thighs.—Very short, and set wide apart.

Legs.—As short as possible.

Feet.—Well spread; the toes straight and slender.

General Carriage and Shape.—Erect, neat, vain; the head and tail almost touching; the wing-ends nearly touching the ground.

Weight.—Cockerels, 1 lb. 2 oz.; cocks, 1 lb. 6 oz.; pullets, 14 oz.; hens, 1 lb. 2 oz.

COLOUR POINTS IN JAPANESE BANTAMS—COCK AND HEN.

Comb, Face, Wattles, and Ear-lobes.—Bright red.

Eyes.—Bright red.

Beak and Legs.—Yellow.

Plumage.—White, Black-Tailed White, Black, White-Speckled Buff, Grey, Brown, and Cuckoo. The Blacks and Whites need no description. The Black-Tailed White have pure white bodies, with black tails. The sickle feathers and tail coverts are beautifully and evenly laced all round the edges with white, the primaries and secondaries of the wings having a black inner web. The White-Speckled should be white and black, marked as evenly as possible. The Greys are black in the ground colour, the hackles, back, and wing-bows of the cock are silver, the hen being laced with silver all over, and rather heavier on the neck hackles. The Cuckoo should resemble the Scots Grey. The Buffs should be a perfectly sound, uniform colour throughout.

SCALE OF POINTS FOR JAPANESE BANTAMS.

A bird perfect in shape, style, size, colour, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad head and comb	...	...	...	...	...	...	...	...	...	10
Too long in leg	...	...	...	...	...	...	...	...	...	15
Bad Colour of plumage	...	...	...	...	...	...	...	...	...	20
„ Shape and carriage of body	...	...	...	...	...	...	...	...	...	15
„ Carriage of tail	..	...	...	...	...	...	...	...	...	10
Want of Symmetry	...	...	...	...	...	...	...	...	...	12
„ „ Condition	..	...	...	...	...	...	...	...	...	8
Incorrect size and weight	...	...	...	...	...	...	...	...	...	10

DISQUALIFICATIONS.

Bodily deformity of any kind, any other than single comb; any fraudulent dyeing, dressing, or trimming; when shown in pairs, birds not matching in the Show pen.

SCHEDULE FOR JUDGING FRIZZLED BANTAMS.

GENERAL CHARACTERISTICS—COCK AND HEN.

- Comb*.—Single or rose; the former preferred.
- Head*.—Neat and small.
- Face*.—Smooth and fine in texture.
- Eyes*.—Bright and sparkling.
- Beak*.—Short and strong.
- Ear-lobes*.—Medium size.
- Wattles*.—Pendent, and neatly shaped.
- Neck*.—Rather short, and neatly arched.
- Back*.—Broad and short.
- Wings*.—Large, long, and drooping.
- Tail*.—Large, full, and carried erect, the cock's being abundantly furnished with side hangers and a good pair of top sickles.
- Breast*.—Full and round.
- Thighs*.—Rather short, and set wide apart.
- Legs*.—Short, and free from feathering.
- Feet*.—Well spread; the toes *four* in number.
- Plumage*.—Very short, wiry, and hard, each feather being curled backward towards the head, the curling to be as close and even as possible.
- General Shape and Carriage*.—Erect, compact, lively, and strutting.

COLOUR POINTS IN FRIZZLED BANTAMS—COCK AND HEN.

- Comb, Face, Wattles, and Ear-lobes*.—Bright red.
- Eyes*.—Bright red.
- Beak*.—Yellow or horn.
- Legs and Feet*.—Yellow for the Golden and White, dark for the Dark varieties.
- Plumage*.—Pure white, sound black, bright golden, partridge, grey and blue. Of whichever colour the birds are, they should be as uniform as possible.

SCALE OF POINTS FOR FRIZZLED BANTAMS.

A bird perfect in shape, style, size, colour, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and comb	...	...	...	...	...	...	...	...	5
„ Feet	...	...	...	...	...	...	...	...	5
„ Colour of plumage	...	...	...	...	...	...	...	...	15
Badly-curved feathers	...	...	...	...	...	...	...	...	25
Feather too soft	...	...	...	...	...	...	...	...	20
Want of Symmetry	...	...	...	...	...	...	...	...	10
„ „ Condition	...	...	...	...	...	...	...	...	10
Incorrect size and weight	...	...	...	...	...	...	...	...	10

100

DISQUALIFICATIONS.

Bodily deformity of any kind; many feathers lying flat; when shown in pairs, birds not matching in the Show pen.

SCHEDULE FOR JUDGING NANKIN BANTAMS.
GENERAL CHARACTERISTICS—COCK AND HEN.

- Comb*.—Single or rose.
Head.—Neat and small.
Eyes.—Bright and sparkling.
Beak.—Short and small.
Face.—Smooth and fine in texture.
Ear-lobes.—Smooth, flat, and nearly round.
Wattles.—Thin and well rounded.
Neck.—Nicely arched, and of medium length ; the cock's hackle long, full, and flowing.
Back.—Moderate in length.
Wings.—Long, and carried in a drooping position.
Tail.—Large, and carried erect ; the cock's tail well furnished with flowing sickles and side coverts.
Breast.—Full, prominent, and carried well forward.
Thighs.—Short, neat, and slender.
Legs.—Short and slender.
Feet.—Small ; the toes straight and well spread.
General Shape and Carriage.—Slightly compact and strutting.

COLOUR POINTS IN NANKIN BANTAMS.

COCK.

- Comb, Face, Wattles, and Ear-lobes*.—Bright red.
Eyes.—Bright red.
Beak.—Horn colour.
Legs and Feet.—Blue.
Neck Hackle, Back, Shoulder Coverts, Wing-bows, and Saddle.—Rich dark cinnamon.
Tail.—Bronze, shading into dark brown or black.
Wing Primaries.—Black.
Secondaries.—The outer web cinnamon, the inner one black.
Remainder of Plumage.—Rich warm buff or cinnamon, as even as possible in shade.

HEN.

- The hen should match the cock in all head points, beak, legs, and feet.
Wing Primaries.—Dark brown or black.
Tail.—Black, the upper outer feathers cinnamon.
Remainder of Plumage.—Clear medium shade of buff, as uniform in colour throughout as possible.

SCALE OF POINTS FOR NANKIN BANTAMS.

Å bird perfect in shape, style, size, colour, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and comb	...	...	...	...	...	...	...	...	20
„ Colour of Plumage	...	...	...	...	...	...	...	...	25
„ „ Legs	...	...	...	...	...	...	...	...	10
Want of Symmetry	...	...	...	...	...	...	...	...	15
„ „ Condition	...	...	...	...	...	...	...	...	15
Incorrect size and weight	...	...	...	...	...	...	...	...	15

DISQUALIFICATIONS.

100

Bodily deformity of any kind, white feathers in wings or tail, any fraudulent dyeing, dressing, or trimming.

CHAPTER XLIII.

GAME, MALAY, AND INDIAN GAME BANTAMS.

Of these Game varieties of the Lilliput family, the Game Bantams are far and away the most popular. The widespread interest in the breeding of these beautifully-feathered, and aristocratically-built birds, proves that their cultivation is in the ascendancy, the competition at our large Winter Shows being very keen. The Game Bantam of the present day is a striking example of the breeders' art, and, unlike the major breeds of Poultry, are, in numberless hands, certain and conclusive evidence that they are by no means an unprofitable variety of Poultry to breed and rear. The magnificent plumage, and graceful outline of the best birds now exhibited, is in marked contrast to the Game Bantam of a former period, and few will deny that, as far as appearance goes, they are far ahead of the thickly-built, heavily-feathered specimens, with drooping wings, shown a quarter of a century back. The highest class specimens now exhibited possess the smart, whip-like contour of the Modern Game Fowl in faultless perfection. The brilliant colours of the various varieties leave little to be desired from an æsthetic point of view. Their plucky and courageous demeanour, against any odds, are a worthy trait in their character, and their tame and docile nature make them lovable. This, coupled with the hen's laying capabilities, their merits as sitters and mothers, and the high quality of their flesh for the table, place them in the very front rank of useful and ornamental Poultry. There is as much skill required in breeding Game Bantams to Standard points as in other varieties of Fowls. At the time of writing, the breed is held in high esteem amongst genuine Breeders and Fanciers throughout the Old World, and America, and also in our own country. We have seen specimens of the Modern Game Bantam that were well-nigh perfect, quite equalling, on Standard properties, the highest class birds of the large Modern Game. This successful issue has taken many years to be brought about, but now is an accomplished fact.

One great advantage in breeding Game Bantams is the exceedingly limited amount of room, attention, and food they require. No matter how small a back yard may be, a pen or two of Game Bantams can easily be accommodated, or, in fact, a half-dozen specimens may be kept in a box of ordinary dimensions, six, six by four feet, if properly attended to. Plain food, grit, sand, and water, combined with cleanliness, will keep them happy and contented. It is astonishing what a small amount of space Game Bantams require (much less than would be generally supposed) to thrive, and do well in.

Game Bantams are bred in four Standard colours, besides which various sub-varieties are also exhibited. The Standard colours are those of the large Modern Game—viz., Black-Reds, Brown-Reds, Red Piles, and Duckwings; the principal sub-varieties being the Birchen-Greys, Lemon-Piles, and Wheatens. In all colours of Game Bantams the chief points are style, good colour, hard feather (*i.e.*, narrow, short, small, and close-fitting feather throughout), reach, and small size. Of these characteristics style is far and away of the greatest importance. (By style, the carriage and general shape of the bird are included.) This should give an erect, tall, smart, and racy appearance. The head should be long, lean, and narrow, and forming, with the neck, a graceful curve; the neck long, lean, and slender, not "bull-necked," or "throaty," or full and forward in neck hackle, which are grave faults. The neck feathers should be close fitting, and very narrow, giving an appearance of great length and slenderness to the neck. This assists in bringing the shoulders out in relief. The shoulders should be carried fairly well forward, and be broad and square; the back flat and short, and quickly tapering off to a fine, narrow stern; the chest broad, but not too prominent, or full-breasted; the thighs long, muscular, and set wide apart, and rather forward; the shanks long, slender, and perfectly straight, and as round as possible. If flat on the front, and square at the joints, these are serious

faults, and an evident sign of weakness, and one strongly hereditary. The scales on the legs and toes small, and close-fitting; the feet and toes sound, the toes long, straight, and well spread out on the ground, the hind toes a good length, *set on low*, and exactly opposite the middle toe. This gives a good foothold. In breeding Game Bantams, the hind toes of the breeding stock should always be given careful consideration, as any fault, bar being caused by accident, is sure to be reproduced in the progeny, often in an aggravated form. The breast should be firm and full, not soft or pappy. The sides of the body, well rounded; the wings short and well curved, closely tucked up, and clipping the body tightly. If carried over the back, this is called goose-winged; or if dropping down on the thighs, *these are both serious faults, and should be stamped out*. Many Game Bantams are far too long in wings, and flat on the sides—two faults to be avoided. The tail must be small, the feathers carried tightly together, and at a very slight elevation. When seen in perfection, the true tail has the appearance of being composed of two feathers, and is known as whip tail—a point greatly to be desired. The tail proper, or true tail (of both cock and hen) should be composed of fourteen feathers. They should be narrow and short. The cock's sickles and secondary sickles should be as fine and narrow as possible, thus giving the bird a smart and well-finished appearance; and as a noticeable fact, the finer and closer the tail is carried, the better the bird is throughout. The eyes should be large, bold, prominent, and fiery-looking. In the Brown-Reds and Birchens, the eyes should be as dark as possible, the more nearly black the better; the other colours should have bright ruby-red eyes. The skin of the face and throat should be thin, and fine in texture; the comb thin, small, straight, erect, and perfectly serrated; small ear-lobes, quite free from white; and small, thin wattles, very fine in texture. Hardness of flesh and feather is desirable in all Game Bantams. This can, in a great measure, be attained by feeding; but careful breeding is far and away the best means to secure this end. It is especially necessary that the stock cock used should excel in this point; but this hardness is mostly accompanied with a deficiency of colour, the hardest-feathered birds being, as a rule, too dark. The course to pursue in this case is to mate him with hens or pullets *lighter* in colour than the Standard colour of the Show hens, by this means producing bright-coloured chickens, fit to win in the Show pen. Thus, it will be often noticed the best *stock* bird on either side would not be able to win in close competition, and frequently, again, a *Cup winner* would be *second rate* as a stock bird.

In size, Game Bantams should weigh, when in *hard, top, Show condition*, one-fifth the weight of the large Game; but the best test for size is the eye, and if the birds are tight, close, and short in feather, the more they weigh, *if they look small enough*, the better. A loose-feathered, clumsy bird may *actually weigh less* than a high-class specimen, but *would look half as large again*.

Colour is the next important consideration, and as this feature counts at least *one-fifth of the total points in a perfect bird*, much depends on obtaining this as near perfection as possible.

BLACK-BREASTED-RED GAME BANTAMS.

The Black-Red cock should be bright red in face, throat, and top of head (and if undubbed, the comb); the beak, dark horn colour; the eyes, clear, full, bright, ruby-red; the neck hackles, clear orange, or light orange-red; the back wing-bows and shoulder coverts, bright crimson (but rich orange-red is allowable); the saddle hackles, orange, to match the neck; the wing-butts, black; wing-bars, steel-blue; the secondaries, rich chestnut, or clear bay; breast and thighs, bluish-black; belly, black, quite free from grey or rusty feathers; the tail, glossy blue-black; the legs and feet, willow or olive. This is the *correct* colour for the Show pen, and if mated to hens lighter in colour than the Standard-coloured hens, will breed cockerels like himself, though the pullets so bred will come pale in breast, and rusty on the sides of the wings. These pullets are, again, invaluable for breeding cockerels from, and are, in fact, the cockerel-breeding strain of Black-Reds. On the other hand, to breed Show Black-Red pullets from Standard-coloured hens, a cock must be used that is of a more even shape of red throughout his top colour, and if he has a rusty feather or two in breast and under the wings this is a good feature for breeding pullets, though a bird of this description would not be able to win in close competition.

The Standard-coloured Black-Breasted-Red hen must match the cock in colour of eyes, beak, legs, and feet, and have red comb, face, ear-lobes, and wattles; the head and hackle feathers golden, with narrow, but clearly defined stripes of black on each side of the shaft of the feather, the golden forming an edging all round; the back, wings, and outer feathers of the tail, one uniform shade of colour, a light brownish drab, each feather pencilled all over minutely with black, giving a plain brown appearance when viewed from a short distance. The pencilling must be very fine, and irregular, *coarse* pencilling being highly objectionable, and rusty markings on the feathers equally objectionable for a Show hen. The tail of the hen, with the exception of the outer feathers, should be black. The throat should be light salmon; the breast, a rich salmon-red colour, the shaft of the feather running a shade paler, the thighs and under-parts shading off to an ashy-grey colour. Hens of this colour, if mated with cocks sound in colour, will throw a fair proportion of good-coloured cockerels, though for producing the latter in more uniformity, hens that are *pale* in breast, *lightly streaked* in hackle, and *rusty* on wings, can be depended upon, as they are, as a rule, harder feathered, and more stylish than the Standard-coloured hens.

LACED-BREASTED BROWN-RED GAME BANTAMS.

The Brown-Red cock should have a dark gipsy face; eyes black, or as dark as possible, and if undubbed, the comb should also be dark purple; wattles and ear-lobes, dark red; beak, the darkest horn colour; legs, feet, and toe-nails, the darkest bronze, the more nearly black the better; head and neck feathers, lemon or golden, striped with black, each feather having a shaft and margin all round the edge of lemon or golden, the sides of the shaft being lustrous black; back, wing-bows, shoulder-coverts, and saddle hackle, lemon or golden, accurately marked with lustrous black in the centre of each feather; breast, rich black, each feather showing pale lemon or straw-coloured shaft and margin all round, giving a beautiful laced appearance; the rest of the body feathers should be black, and as lustrous as possible. This has been the fashionable colour for some years, but owing to the softness of feather which generally accompanies the paler shades, there are many high-class Judges and Breeders who prefer the Golden to the Lemon, and even go so far as to advocate bright orange. Any of these three shades of colour are permissible, as the Black-Reds are of various shades, the Piles and Duckwings ditto; but whichever shade the bird is, the laced breast and striped hackles must be clear and distinct.

The Brown-Red hen must have a gipsy face and comb, which, as a rule, are found much darker (often black) than the cock's; eyes, beak, feet, and legs, to match the cock; the head and neck hackle, straw colour, or pale gold, or even brassy, if clear and bright, each feather having a narrow stripe of lustrous black down each side of the shaft; the breast must also be laced similarly to the cock's, but not so heavy; the whole of the rest of the plumage being one beautiful lustrous green-black. The straw, pale gold, or bright brassy colour should run right up both sides of the comb, hens having *brown* or *black* colour on their heads being objectionable.

We have bred Brown-Red cockerels in three ways: First, by using a high-coloured cock, with not too much breast lacing, and mating him with small-framed hens, clear in body colour, fairly well laced on the breast, and with their hackles lightly streaked with gold colour; the paler the hackle colour is, the brighter you will get the cockerels. Secondly, by using a darker-coloured cock with Birchen hens. Thirdly by using a Birchen cock with Brown-Red hens; but the first plan—of mating the pair of pure Brown-Reds—if properly selected, will produce the best cockerels. In any case, a Brown-Red hen, at all shafty in wings, or laced on back, is almost worthless for breeding, and no use at all for showing, as, if bred from, the cockerels will come ticked in under-parts, and heavily laced on wing-butts—two faults that must not be tolerated in Brown-Reds.

In breeding the Brown-Red pullets, a cock should be chosen before a cockerel, as often the latter, though perfectly sound in the black of the wing-butts as a cockerel, will moult out ticked or laced in these parts after the first year, and if bred from, will throw pullets laced on back and wing-bows, and useless for Show purposes. The cock may be a couple of shades darker than the Exhibition Standard colour. If he

is fairly well laced on the breast, and as small and stylish as possible, mate him with the broadest-backed hens, wide between the legs, lightly laced on breast, and with good hackle, but *perfectly sound in body colour*. These will produce pullets uniformly, with laced breasts and good hackles, and the soundest and brightest of body colour, just as desired for the Show pen, the cockerels produced from this mating being the best to use the following year to breed Show pullets. One thing must not be overlooked in breeding Brown-Reds—it will not matter so much if the cock is a little pale in eye, providing the hens he is mated with excel in the colour of their eyes.

BIRCHEN-GREY GAME BANTAMS.

Birchen-Greys are offshoots of the Brown-Reds and Silver-Duckwings crossed, and should be an exact replica of the Brown-Reds, substituting *white* for the lemon or golden markings. They rank as quite the equals of any of the varieties in appearance, and must be just as accurately marked and stylish as the rest of the Game tribe. These breed absolutely true to feather, the white and black markings standing out in bold and striking contrast.

GOLDEN-DUCKWING GAME BANTAMS.

Golden-Duckwings are also very beautiful when bred right up to Standard requirements. The cock's head and hackle feathers creamy white, free as possible from brown or dark stripes; the back wing-bows and shoulder coverts clear and even orange colour, bright and sound, or even golden yellow, this colour shading into straw colour on the saddle hackles; wing-butts, breast, and thighs, sound blue-black; belly and under-parts, black, quite free from admixture of coloured feathers; wing-bars, steel-blue; secondaries, clear white on the lower edge, with a blue-black spot on each end, forming a bar above the white; the under-parts of the secondaries, black; the primaries, black, with a white edge to the bottom of the two lower feathers. The tail and sickles should be a bright, lustrous blue-black, without any admixture of other colour; the face and eyes, rich bright red, and the legs and feet willow or olive. A cock of this description will breed cockerels the counterpart of himself if mated to Duckwing hens light in hackle, pale in breast, and ruddy or rusty-winged; but our plan to breed bright coloured cockerels is to use hens that are *Black-Red bred*, that is, bred from a Black-Red cock and Show Duckwing hens. These are invariably bright light golden in hackle, the streaking being light, and the body colour warmer or redder looking than the pure Black-Red hen. We have at times also bred good cockerels from a bright-coloured Black-Red cock and *Silver-Duckwing* hens, the pullets so bred being useful again for Duckwing cockerel breeding, by being mated as described. The Show Duckwing hen must match the cock in colour of face, eyes, legs, and feet; her breast should be a bright salmon, shading off to an ashy-grey on thighs, belly, and under-parts, the ground colour of body and wings being a beautiful French grey or pale slate-coloured ground, minutely and evenly pencilled with black; the head and neck hackle, white, striped with black; the tail, black, but the two top outer feathers of the same colour as the back and wings. To breed Show pullets, the Standard cock mated with hens such as described will generally throw all desired, but at times the Show Duckwing cock may have a little too much black-red in his composition, the pullets bred running rusty; or the hens may have the same failing. To remedy this he should be mated with Silver-Duckwing hens, or a still better plan is to use the Silver-Duckwing cock with the Show Duckwing hens. Pullets can be bred much easier than cockerels.

SILVER-DUCKWING GAME BANTAMS.

The Silver-Duckwings, or true Duckwings, are similar to the Golden-Duckwings in general markings, substituting silvery-white where the Golden cock is coloured, the hens running paler in hackle, breast, and body colour throughout. There is no strain of Game which will breed so absolutely true to feather as the Silver-Duckwings, cockerels and pullets alike being perfect, from perfect parents.

RED-PILE GAME BANTAMS.

Red-Piles are beautiful little birds. They should have red faces and eyes, and either yellow or willow legs and feet; the former is preferred, as yellow matches the plumage better than willow, but in any case the beak and legs *must* correspond. The cock should be red where the Black-Red cock is red, and white where



Black-Breasted Red and Golden-Duckwing Game Bantams.

Bred by and the property of Mr. A. J. Compton, Leichhardt, Sydney, N.S.W.

The Black-Breasted Reds winners of numerous prizes.

DUCKWING HEN—"Lady Una."

Winner of 1st Royal, 1896, and N.S.W. P.P.C. and D. Shows, 1896-97, and 1st. Poultry Club Show, 1897.

DUCKWING COCK—"The Dandy"

Winner of 1st Royal, 1896, and D. Shows, 1896-97; 1st Royal, 1st and Special at Poultry Club, N.S.W., and S.A. P. Soc., Adelaide Show, 1897.

he is black ; the purer and clearer the white the better. He should be a pure milky-white in breast, thighs, belly, tail, under-parts, wing-bars, and wing-butts. The head and hackle, orange-red, as free from white as possible, though there is generally a little white noticeable towards the points of the hackle ; the back, wing-bows, and shoulder coverts, rich crimson, shading into orange-red, to match the hackle. The flight coverts should be rich bay or chestnut, with a white spot on the end of each feather, forming a stripe or bar above the bay. A bird of this colour will breed cockerels like himself if mated with Wheaten-Pile or ruddy-winged hens. The Pile hen should have red face, eyes, wattles, and ear-lobes ; the hackle, gold and white, the gold predominating, each feather being white in the shaft and centre, with golden margin all round ; the breast, a rich salmon-red, shading off to a creamy-white on thighs, belly, and under-parts ; the remainder of the plumage, a clear creamy-white, the *clearer* the better. Birds on both sides, if of the Standard colour, can be depended upon to produce Show pullets, though at times it is necessary to use a Black-Red cock to keep up the colour and hardness of feather ; Piles being bred together for any length of time, without a cross from the Black-Red, becoming in a few seasons washed-out in colour and soft in feather.

LEMON-PILE GAME BANTAMS.

The Lemon-Piles are offshoots of the Red-Piles, their colours being paler and indistinct—both cocks and hens—their chief value being for the production of the Show or Red-Piles, by the aid of the Black-Red cross.

WHEATEN-GAME BANTAMS.

The Wheatens are the cock-breeding strains of Black-Reds, Piles, and Duckwings, and are classified as Red-Wheatens, White-necked ditto, and Pile ditto, their chief value being for the breeding-pen, to produce the brightest-coloured cockerels of the three varieties.

The Red-Wheaten hen is bright red in comb, face, eyes, wattles, and ear-lobes ; beak, greenish-horn ; legs and feet, willow or olive-green ; head and hackle feathers, golden, as free from streak as possible ; breast, pale fawn or cream colour ; thighs and under-parts, creamy or pale buff, *the fluff being dark at the roots of the feathers* ; back and wings, pale cinnamon or wheat colour ; the top outer feathers, the same colour as the body ; the tail, as black as possible.

The Duckwing-Wheaten hen is like the above, except that the hackle is white, and as free as possible from streak, *the fluff being greyer at the roots of the feathers*.

The Pile-Wheaten hen should have yellow beak and legs, and is of a deeper fawn body colour, the hackles having more golden marking. *The fluff at the roots of the feathers is white*, the flight feathers, primaries, and tail being white.

In setting Game Bantam eggs, we generally allow the hens to hatch and rear their own chickens, finding them the equal of their larger editions, the Game, in this respect, making the nest with grass in a corner of the house on the ground, giving from five to eight eggs to each hen (oftener five than eight), as the best results generally come from the smaller number. When the chickens are hatched the hen should not be disturbed for twenty-four hours, the young ones receiving their first meal of oatmeal mixed with boiling milk into a crumbly mass ; on this they are fed five or six times per day for the first week. After the third day a little crushed wheat, hemp seed, or canary seed may be given at evening, changed to whole grain when they are three weeks old, with an occasional titbit in the way of minced meat. On this diet they will thrive famously if plenty of grit, green food, and water are supplied. When they are three months old, by this time having left the hen, the cockerels are best separated from the pullets. The former will agree together until ready for dubbing, at about six or seven months old. This is a good time to begin training them for the Show pen, and just previous to exhibition they may be given a little ground linseed and sulphur added to the soft food, which will assist in brightening up the feathers considerably. A little iron tonic in the drinking water will put on the finishing touches about the head, face, and comb ; and if the spiky feathers are trimmed off the heads of the cockerels, and the feet and legs well washed the day before the Show, they will require no further attention.

MALAY BANTAMS.

The Malay Bantams resemble to a certain extent the Game Bantams in shape, habits, and hardness of feather, yet they have many distinguishing points clearly defined from the Game Bantam. The late Mr. W. F. Entwisle, of Yorkshire, England, was the original producer of the Malay, Indian, and Aseel Bantams, devoting many years of patient study and perseverance to the object. How well he has succeeded is a lasting tribute and monument to his memory. The three varieties mentioned, and which are bred by numerous admirers throughout the world, are all descended from the birds bred down by Mr. W. F. Entwisle.

The Malay Bantam is at present the chief favourite of the three, and is bred in five different colours, viz., White, Pile, Dark-Red, Bright-Red, and Pheasant, and of these the latter and the Whites are the chief favourites. In shape, gait, and swagger they are the counterparts of the large Malay, with the exception of scarcely being so heavy and beetle-browed in proportion, but this point is gradually being improved. In size they are a little larger than the Game Bantam, being stouter built, stand more rakish, have broader shoulders, narrower sterns, more drooping in the tail, covered with a great many more narrower and wirier side sickles than the Game Bantam. The whole of the Malay Bantams have pearl or yellow eyes, strawberry or half-walnut combs, and the brightest orange-coloured legs and beaks. They have the same characteristic curves of the large Malay, formed by neck, back, and tail, and are, in fact, if good specimens, genuine Malays in miniature. This breed possesses some advantages over the Game varieties, in addition to quite equalling them in colour, and variety of plumage, their bright legs and beaks setting the plumage off to great advantage. Their combs do not grow out of shape; the cocks never require dubbing; their ear-lobes never require removing, as they are *always* red. This cannot be said of the Game Bantam, in many cases, until after the application of the scissors. They are quickly and easily prepared for the Show pen, only requiring their faces, combs, and feet washed, and are easily tamed and trained for the Show pen. One feature in the Malay Bantams is their extremely hardy constitution and the vigour of the stock birds. The eggs hatch well, and the chickens are fit for the Show pen at five months old. The hens are excellent sitters and mothers, rearing their own chickens admirably.

The hens do not lay a large number of eggs at a batch, but they are a good size and pointed at one end, rarely exceeding the small number of eleven, but if broken off the broodiness will begin laying again shortly, and if allowed to sit will hatch out three broods during the season. The Black-Reds are of two shades, known as Dark-Reds and Bright-Reds. The Dark-Red cock has a deep red hackle and saddle, dark purplish crimson or maroon back, wing-bows, and shoulder coverts, the rest of the plumage being raven black of a lustrous shade. The hen is dark bay in hackle; the body, wings, and breast are wheaten or cinnamon, as even and unbroken in shade as possible. This class of bird breeds exceptionally true to colour—both cockerels and pullets. The Bright-Red Malays are in colour a shade or two darker than the Black-Red Game Bantams, the hen's hackle and head feathers being much darker than the Black-Red Game Bantam hen. This colour also breeds both sexes very true.

The Pheasant-Malay is marked exactly like the large Cornish-Indian Game, the cock's hackle being raven black, with maroon shafts and centres to the feathers; the breast, tail, and under-parts, a lustrous raven black; dark maroon wing-bows; the back and saddle being black and maroon intermixed, the black predominating; the secondaries, good sound, rich bay, well laced or lined with black on the edge of each feather. This is a point much sought after, and a cock mated in this manner may be depended upon to breed the best-laced pullets. The hen's head and neck feathers are a rich bluish-black; breast, back, wings, and thighs, one uniform rich bay colour, each feather distinctly laced with concentric rings of rich bluish-black or beetle-green. In some specimens, one, two, or even three, lacings may be noticed on each feather, but the single lacing is far the most showy and attractive marking.

Red-Piles are marked exactly like the Red-Pile Game Bantams, the top or red colour, however, running a little darker in the cocks, the hen's hackle and breast also being a shade or two darker than the Pile Game Bantam hen.

Whites should be, as the name implies, a pure spotless white throughout both sexes, in feather; and care must be taken to avoid breeding from birds which show any admixture of *red, brown, or sandy* feathers in plumage, as once any of those colours are in a strain it will be an almost impossible task to eradicate the fault.

CORNISH-INDIAN GAME BANTAMS.

The Cornish-Indian Game Bantams are, in type, style, and feather, the exact duplicates of the large Cornish-Indian Game Fowls. They are not so tall and reachy as the Pheasant-Malay Bantam, being cobbier and stouter built. Their skulls are not so broad, and they have pea or triple combs; the tails are carried a little higher than the Malay Bantam, but still low and close. To breed the Cornish-Indian Game Bantams, the same rules as laid down for the breeding of the large variety will hold good. Both sexes have the brightest of orange-coloured legs and beaks.

SCHEDULE FOR JUDGING GAME BANTAMS.

GENERAL CHARACTERISTICS AND COLOUR OF GAME BANTAMS.

Identical in all respects with large Game, with the sole exception of size. Weight should not exceed—in cockerels, 1 lb. 4 oz.; cocks, 1 lb. 8 oz.; pullets, 1 lb. 2 oz.; hens, 1 lb. 4 oz. Carriage, style, action, and general shape the same as the Game Fowls; but, being so small, having a more impudent and fussy appearance.

SCALE OF POINTS FOR JUDGING GAME BANTAMS.

A bird perfect in shape, style, colour, size, and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and neck	...	...	...	...	...	...	...	...	...	10
„ Eyes	...	...	...	...	...	...	...	...	...	8
„ Body and wings	...	...	...	...	...	...	...	...	...	7
„ Legs and feet	...	...	...	...	...	...	...	...	...	7
„ Tail	...	...	...	...	...	...	...	...	...	10
Want of Symmetry	...	...	...	...	...	...	...	...	...	10
„ „ Condition	...	...	...	...	...	...	...	...	...	10
Bad colour of feather	...	...	...	...	...	...	...	...	...	20
Too much feather	...	...	...	...	...	...	...	...	...	8
Incorrect size and weight	...	...	..	...	...	...	...	...	...	10
										100

DISQUALIFICATIONS.

Any other than single comb, duck feet, crooked breast, wry tail and deformed back, or any other bodily deformity. If shown together, birds not matching in colour; any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING MALAY BANTAMS.

GENERAL CHARACTERISTICS AND COLOUR OF MALAY BANTAMS.

Identical in all respects with large Malays, with the exception of the Pheasant variety, which should resemble the large Cornish-Indian Game Fowl in feather markings only. Weight—Cockerels, 1 lb. 12 oz.; cocks, 2 lbs.; pullets, 1 lb. 6 oz.; hens, 1 lb. 8 oz.; but, owing to small size, the gait and swagger, similar to that of the larger variety, is correspondingly more ludicrous.

SCALE OF POINTS FOR JUDGING MALAY BANTAMS.

A bird perfect in shape, style, colour, size, and condition to count 100 points.

The Australasian Book of Poultry.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and neck	15
„ Eyes	10
Want of shoulder	10
Bad Legs and feet	10
„ Tail	5
Want of Reach and Symmetry	12
„ „ Condition	10
Bad colour	8
Too much feather and softness on handling	10
Incorrect size and weight	10
	100

DISQUALIFICATIONS.

Single or triple comb, duck feet, wry tail, or any other bodily deformity, legs any other colour than yellow; if shown together, birds not matching in colour; any fraudulent dyeing, dressing, or trimming.

SCHEDULE FOR JUDGING CORNISH-INDIAN GAME BANTAMS.

GENERAL CHARACTERISTICS AND COLOUR OF CORNISH-INDIAN GAME BANTAMS.

Identical in all respects with the Large Cornish-Indian Game Fowls, with the exception of size. Weight—Cockerels, 1 lb. 8 oz.; cocks, 1 lbs. 12 oz.; pullets, 1 lb. 4 oz.; hens, 1 lb. 6 oz.

SCALE OF POINTS FOR JUDGING CORNISH-INDIAN GAME BANTAMS.

A bird perfect in shape, style, colour, size, and condition to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head and neck	15
„ Eyes	5
„ Shape of body and shoulders	15
„ Legs and feet	10
„ Tail	5
Want of Symmetry	12
„ „ Condition	8
Bad colour	10
Want of brilliancy and hardness of feather	10
Incorrect size and weight	10
	100

DISQUALIFICATIONS.

Single or strawberry comb, duck feet, wry tail, or any other bodily deformity; legs any other colour than yellow; if shown together, birds not matching in colour; any fraudulent dyeing, dressing, or trimming.

CHAPTER XLIV.

DUCKS.

ONE of the queerest anomalies of the present day, is that of healthy persons standing around and complaining that there is nothing for them to do which will pay, while at the same moment the public is waiting for eggs, Fowls and Ducks. In the latter business no one need fail of securing remunerative returns for his labour and capital. Only the very grossest carelessness and neglect will put a stop to profitable production in duck-raising, not only neglect in feeding too short a ration, whereas it may signify just the opposite, and, if strict business principles are followed in the management, a good measure of profit will be assured, and duck-farming carried out in a methodical and business-like manner, will pay as well, or better, than any other business, for the same amount of capital invested and labour bestowed. In America duck-farming is extensively followed, and we know of some half-dozen well-managed duck farms in this country, from which the proprietors derive their sole income, and a good one at that. The magnitude of the duck farms of America are quite in keeping with the huge notions of that country, two of these farms in particular being worthy of mention, that of Weber Bros., Wrentham, and Messrs. Gerner & McFetridge, Griesmerville. The working plant, buildings, etc., of the former are valued at £4,000. This business was first started in 1889 with TEN Ducks, and the success attached to the enterprise is marvellous. It is a big jump from ten Ducks in 1889 to the raising of nine thousand in 1895, and keeping through the winter for breeding some six hundred head. At a fair estimate there are quite one thousand running feet of houses, two long hot-water pipe brooding houses, two incubator cellars containing sixteen 600-egg incubators of the "Monarch" type, a house for killing and picking, an engine pumping house, etc., *all made out of raising Ducks for market*. On this farm rows of apple and peach trees are grown for shelter during the hot weather, and between the rows of trees are "shelters" of rough boards spread over poles wired to stakes driven into the ground, shade being an important aid to increase size in growing Ducks during the hot summer, as much as one to two pounds extra growth per pair being gained by providing good shelter from the sun. This firm marketed about 50,000 pounds weight of Ducks dressed during the 1895 season, the feathers alone returning the substantial sum of £60 per year.

The Duck farm of Messrs. Gerner & McFetridge is eight acres in extent, a creek running through the whole length of the farm. This enables the stock Ducks, some four hundred in number, to follow their favourite pastime. The hatching house is a frame structure 34 x 74 feet; on the first floor are fifty-six incubators, each of 300-egg capacity. The temperature is maintained by means of oil lamps in each machine, controlled by a thermostatical boiler. The interior of these incubators has two compartments. On the lower floor are scattered fine shavings; the eggs are laid on wooden bars forming a second storey. Six days after the eggs are put in they are tested, and the bad eggs taken away. The vacancies thus caused are replaced by other eggs. The novelty in this two-storey incubator is that, when at the expiration of the twenty-eighth day the ducklings pick their way out of the shells, they drop to the lower floor through the bars, and waddle around on the shavings. When the ducklings are twenty-four hours old they are taken out of the incubator and removed to a building at hand. This is the brooding house, of frame construction, measuring 20 x 216 feet, and has sixty-six pens or divisions, each of which will hold one hundred ducklings. An even temperature is maintained by means of a Royal hot water service. The second floor of the hatching house is filled with feathers, which are treated at a temperature of 120 degrees Fahr. to make them suitable for filling pillows. These feathers sell at a fair price per pound; a thousand Ducks will yield one hundred pounds of feathers, and during the year an average of seven thousand Ducks are killed, plucked,

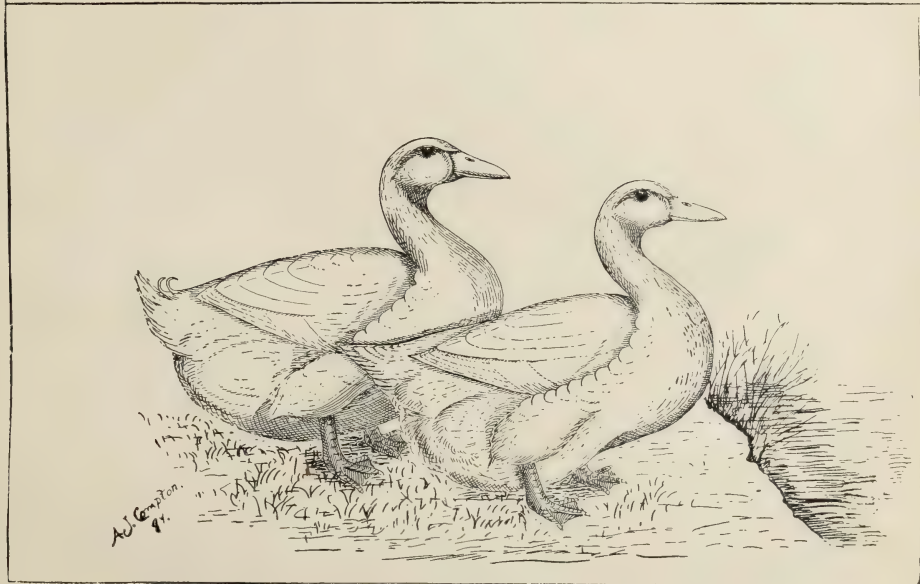
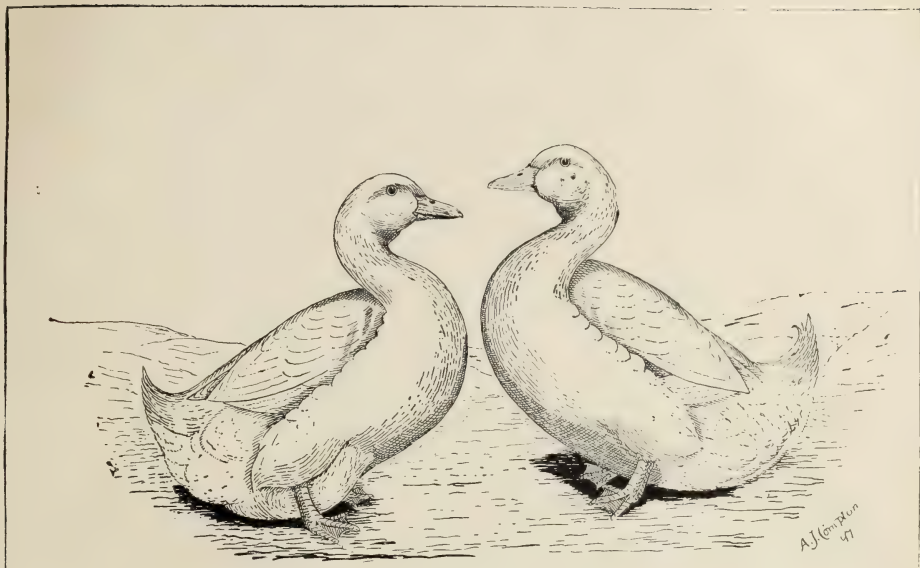
and marketed. A large part of this farm is divided by wire divisions into pens, a stream of water running along the whole length of the pens. A tramcar also runs along the lines of pens in order to distribute the food. Each of these pens or divisions measures 13 x 75 feet. The water is distributed by artificial means, the supply being drawn from the creek. A building at one end of the farm is the slaughtering place for the Ducks. On the opposite side of the creek are three duck-houses and yards, where the adult Ducks are kept. All of the Ducks raised on this farm are of the Pekin variety. The young Ducks are quite ready for market at from 8 to 12 weeks old, and then weigh 4½ lbs. or more. The 400 grown Ducks lay from 25 to 100 eggs per day. Nearly the whole of the products of this farm are disposed of in the New York market.

To come a little closer home we know of one farm in this country whose annual output of Ducks for market averages between 3000 and 4000 head; there are various breeds kept, but the proprietor informed me, in answer to a question, that he considered the Aylesbury was the best, as he could market them from 8 to 10 weeks old. Another farmer has an output of nearly 3,000 head, but assures that he will double this quantity in another year; on this farm various breeds are kept, though this farmer favouring the Muscovy Pekin cross as making the best and heaviest carcasses at marketable age from 9 to 12 weeks. On both of these farms, hatching is done entirely by incubators, in the former all 100-egg machines are used, in the latter mostly 200-egg machines are preferred. The latter farm has incubators sufficient to hatch 1,500 ducklings at one time. Both of these farms are as yet in their infancy as far as surroundings are concerned, but with the good prospect looming ahead, much improvement in buildings and surroundings is contemplated. One thing that struck us more than another, was the limited space required to accommodate a thousand or two head of Ducks, which would be quite inadequate to house and run with any likelihood of success one-fourth the number of Fowls.

One of the largest Duck farms in this country is that owned and conducted by Mr. Samuel Ellis, Bay Street, Botany, N.S.W., and whose interest in Duck raising for market, offers the opportunity of an excellent object lesson, as every information is given to visitors.

The output of this farm averages 7,000 head of Ducks, and 90,000 eggs per year. There are 150 head of Muscovy Ducks alone reserved for breeding, and 300 hens for market eggs. The bulk of the breeding stock of Ducks are Pekin Drakes and Aylesbury Ducks, which Mr. Ellis states he finds the best for his purpose. The sheds, duck houses, fowl houses, hatching shed, sheds for egg storage, etc., are all arranged in a systematic manner. There are eleven incubators of 100 egg capacity kept constantly going, and to give an idea of the amount of food consumed daily, in answer to a question, we were informed that 500 Ducks consumed 48 gallons of food per day on the average. The animal food is brought from the Glebe Island Abattoirs daily. The breeding ducks are kept in flocks of 60 Ducks with 12 Drakes, the latter being one year old birds, the Ducks being in their second year. The breeding stock are allowed free access to water, and are fed on bran and pollard every morning with wheat every night, a plentiful supply of green food daily, and meat twice per week. No corn is ever fed the breeding stock on the grounds of its overfattening tendencies, and the natural result, weak ducklings; and as an alternative diet with the meat, potatoes mashed to which a little salt is added. The small proportion of Drakes, that is, one to five Ducks is rather different to other duck-breeders' experience, who, as a rule, allow two Drakes to every five Ducks. The young ducklings are taken from the incubators in batches of 70 to 100 head, and placed in the foster mothers or clean dry straw. These foster mothers are double, each having a rim attached, being heated with hot air to about 85° Fahr. for a few days only, the young ducklings, requiring less heat and more ventilation than young chickens, after they are 24 hours old, they receive their first meal, which is composed of soaked bread, mixed with oatmeal and pollard in equal parts; the moisture well squeezed out and rubbed between the hands into a crumbly state. Great attention is given in making this food the right consistency, as if too wet and sticky, it clogs up their bills and eyes, and they refuse to eat it. This food is placed in wooden troughs, four feet long three inches wide, and one inch in depth inside measurement; the trough placed on a clean bag so that any food dropping over the sides will be eaten up clean. This food is continued for three days, then changed to oatmeal, pollard, and bran, till they are a week old, then green food and meat minced up

Pekin Ducks.



Aylesbury Ducks.

fine is given them mixed with the oatmeal, etc. This is mixed twice a day so as to be as fresh as possible, and as much given to them at a time as they will eat up greedily, any food whatever being left over is immediately removed. They are fed for the first week every two hours. When the weather is fine the ducklings are allowed out into the open runs attached, the food and water being placed in shady spots. The water is renewed every two hours, being placed in iron vessels with a margin about one inch in width for them to drink from, the centre being occupied, so that the ducklings cannot get into the water. The runs are all built with a northerly aspect, and ample shade provided. During showery or wet weather the ducklings are confined in the brooding sheds, and never allowed to get wet until they are well advanced in feathering. The brooders are well littered with straw, which is taken out every fine morning and placed in the sun to dry, in this manner keeping sweet and clean for a long time. At a fortnight to three weeks old the ducklings are removed to large roomy sheds, which are perfectly dry and well ventilated, Mr. Ellis stating that nothing is so fatal to young Ducks as damp floors. Great care is taken to prevent overcrowding, as this causes the disease known as swelled face, and young ducklings, if overcrowded, sweat and stew; and as Mr. Ellis aptly remarked, a sick Duck is a dead one in the morning.

When the ducklings are well feathered on the wings, they are again removed to another run in which there is a running stream. Their food is again changed to oatmeal, barley meal, mixed with boiled liver and lights, the soup made also being incorporated, the soft food having a little bonedust added. Potatoes and turnips are also well boiled and minced up, the food being placed on sheets of iron to prevent fouling, and also on rainy days the water runs off the iron. This plan is adopted in preference to feeding from troughs, as during wet weather, if fed in the latter, it becomes sloppy and unwholesome, and in that state retards the early growth of the stock which is so desirable from a pecuniary point of view.

Of the principal domestic varieties of Ducks opinions are much divided as to which is best, whether Aylesbury, Rouen, or Pekin. Any of these varieties crossed with each other will give a fine framed quickly maturing bird, and in fact any one of them crossed with the Muscovy will give even a bigger and better bird for ordinary consumption. These, however, run a trifle coarse in flesh after they are four or five months old, but killed at from ten to fourteen weeks are of the very highest quality.

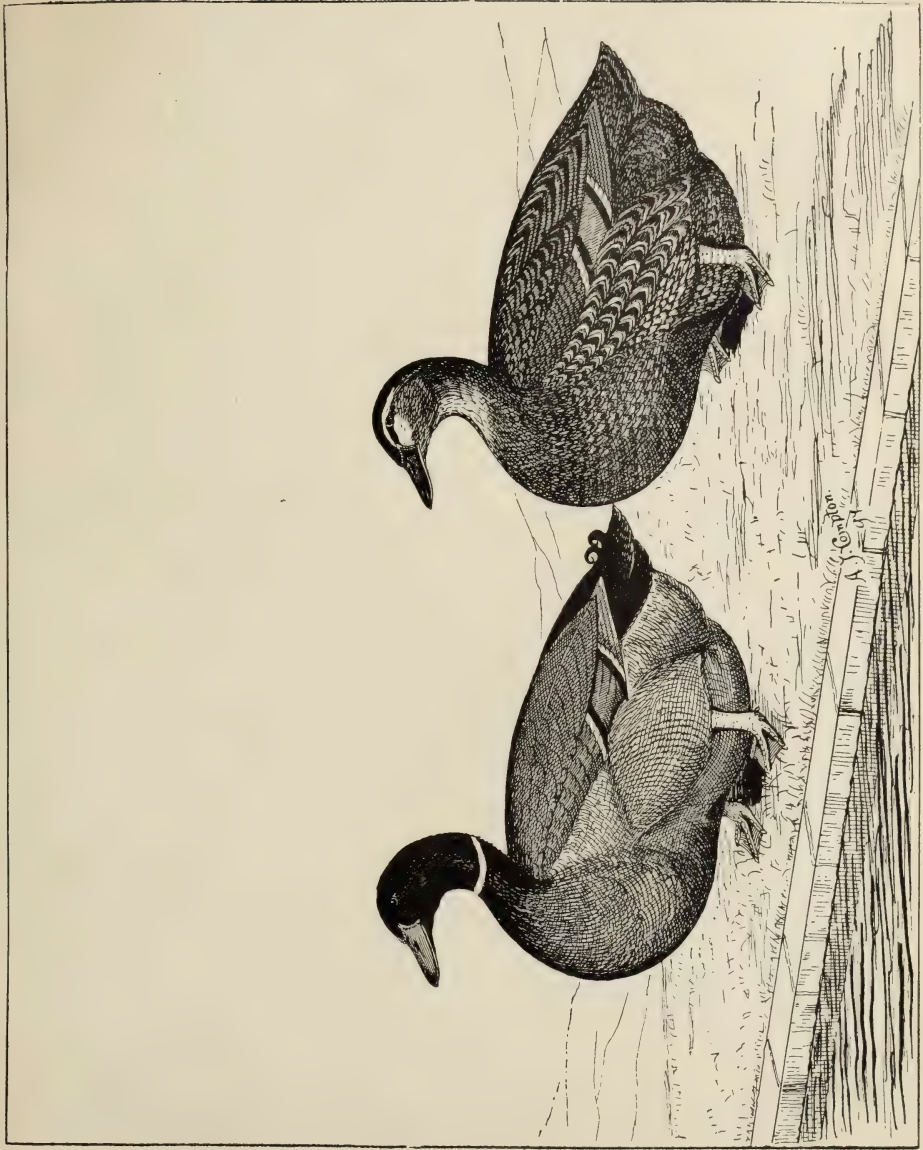
The Aylesbury Duck.—Of the pure bred domesticated varieties, the Aylesbury has held pride of place in public esteem for many years, but of late the Rouen and Pekin varieties have proved worthy opponents, many Duck farmers leaning to the last named as being the most profitable breed to keep. The town of Aylesbury in the County of Buckinghamshire, England, in which the Aylesbury duck is universally raised for market gives the breed the name; and the soil in the vicinity tends towards the development of the main characteristic trait that the Aylesbury duck possesses, that of its peculiar coloured pinky flesh bill. It is a remarkable fact that this breed originated in the County of Bucks, and still more remarkable that it should have attained the world renowned position it now occupies, as the breed may be found in purity throughout the whole poultry world. Much of this latter being no doubt due to the fact of the breed adapting itself to all variations of climatic surroundings, growing to an immense size under nearly all conditions, being of an extraordinarily hardy nature, and arriving at maturity at an early age.

Our readers will understand the enormous dimensions the trade of raising Ducks alone for the London market assumes, when we state that upwards of £25,000 per year is returned to the immediate neighbourhood of Aylesbury. The ducks, as supplied, are of one uniform colour, viz., spotless white, and the slightest foul marking in the plumage is a sign of impurity of blood. The legs and feet are of a bright orange hue, the bill a pinky flesh colour, and the difference in the male and female is only noticeable by the drake being a little larger than the duck, and having a feather curled upward in the tail. They do not, as a rule, weigh above 8 lbs. for drakes, and 7 lbs. for ducks, at a year old, though at times these weights are considerably exceeded in individual specimens. In breeding the Aylesbury Ducks it is always best to allow an average of one drake to three ducks, experience proving that better results accrue from this proportion than from a larger or smaller number, and for breeding purposes, a pond, lagoon, or river is absolutely necessary. The ducks, if

well cared for, generally commence to lay at ten months old, and to ensure fertility in the eggs, the drakes should be in their second year but not older. One peculiarity in this breed is the extreme variations in the colour of the eggs laid, ranging from white to a perfect green. There is some difficulty likely to arise in the procuring of the Aylesbury *pure*, as the Pekin has been used extensively for crossing purposes, principally for the object of increased size, though at the same time the bills, having a tendency to become yellow by surrounding conditions, and the great heat of the sun, is no certain guide to their impurity of blood. But, however, the colour of the bill is an all important consideration if the birds are intended for exhibition, and much pains and trouble are necessary to retain this characteristic trait in perfection. The best plan to secure this is to allow the birds but little liberty during the hot portion of the day, providing plenty of clean water and gravel for them to rummage amongst, keeping the birds the last fortnight or so before showing in a partly darkened pen. In feeding all young ducklings for the first week, bread crumbs and hard-boiled eggs, given every two hours, will be all that is required. After this they may be fed liberally four or five times per day on pollard and oatmeal, with a little minced meat added, which, if it is practicable, should be mixed with milk for preference, this will bring them along nicely for another fortnight, and a feed of grain, such as wheat or cracked corn, placed in the troughs overnight, so that they will be able to obtain a feed early in the morning. No neglect of providing an ample supply of grit or gravel, and fresh green food, should be overlooked; as once stunted in early growth little good results will be obtained. Worms or grubs are morsels relished by all Ducks, and, failing this, animal meat should be given.

The Rouen Duck is, in plumage, the exact counterpart of the Wild Duck or Mallard, but, owing to its habits and surroundings being entirely changed by domestication, is altered considerably in outward appearance of form and carriage. This breed run to far greater weights than the pure Aylesbury, a fair average being 11 lbs. for drakes and 10 lbs. for ducks, and these weights are often exceeded in show specimens, which, however, are, as a rule, abnormally fat. It has not the same advantages as the Aylesbury, inasmuch as it is much slower in arriving at maturity, and necessarily breeds later. They are of a very hardy constitution, and fatten to a great weight. As before stated, the plumage is identical with that of the Mallard, but for purposes of exhibition the breast of the drake must be of a deeper colour. The bill of the drake is of a yellowish-green colour, any other colour being highly objectionable, and the bill should come straight down from the skull without break, of good length, and broad. The head is a purple-green, this colour running down the neck until it meets a broken ring of white; the latter, however, being broken, does not form a complete circle, being incomplete at the back. This ring should be clearly defined on the sides of the neck and throat. The breast should be a deep claret-brown colour, extending well down, and as free as possible from broken markings, merging into a lovely French grey on the lower part of the belly and under-parts, extending to the tail. The back is a rich satiny greenish black, the upward curled feathers of the tail being a darker green. The wings should be a greyish-brown, with a bright and distinct wing-bar of blue across them, edged on each side with a stripe of pure white. The wing feathers should be brown and grey, any white in under-part of tail or flight feathers being objectionable. The legs are of a bright orange colour, and the appearance of the bird stately and attractive.

The bill of the duck should be of an orange colour, with a dark stripe extending down two-thirds from the head, not, however, touching the sides or point of the bill. This colour varies while the duck is laying, often appearing dark brown or black throughout. The head should be brown, with two distinct lines on either side, starting from the eye, and extending down the neck some distance. The breast is of a brown ground colour, pencilled all over with a darker brown; the back a brown ground colour, pencilled with very dark brown, approaching black. This marking should be very distinct. The wing-bar is similar to the drake's, also being edged with white. The same peculiarity is noticeable in the colour of the eggs laid by the Rouen Ducks as in the Aylesburys, ranging from white to deep green. In mating the Rouens for breeding for exhibition, mere size is not of such vital importance as perfection in colour markings, and, for show or breeding, if the birds excel in the latter particular, and are of fair average size, better results will be obtained



Rouen Ducks.

than if a coarser plumaged pen of LARGE size were selected for mating. Many breeders prefer to mate ducks two years old with a drake not exceeding eighteen months. To breed the Rouens for perfection of markings it is always advisable to mate up separate breeding pens for the production of the two sexes. Thus, to breed standard-coloured drakes, the *darkest* drake should be mated with DARK-COLOURED ducks, and to produce standard-coloured ducks a FAIRLY dark drake should be mated with ducks *light in ground colour and markings*.

In preparing the Rouens for exhibition, much the same plan as advised for the Aylesburys should be followed, and if a little linseed meal is added to the soft food daily for a fortnight previous to the show, will assist greatly in giving the bird the glossy appearance so much desired on the feathers. During the summer months the Drake moults out his beautiful plumage, and assumes the more sombre feathering of the Duck. The directions given for feeding and rearing Aylesburys will be found advantageous in the management of the young Rouens. This breed is better adapted for city or suburban surroundings on account of the plumage, the latter not being nearly so likely to become soiled as either the Aylesbury or Pekin, and without doubt as a handsome and attractive variety is in the very front rank.

The Pekin Duck is of a more recent introduction, being originally imported from Pekin somewhere about the seventies. They breed with any of the other varieties, giving increased size. The difference in outward appearance and carriage is most marked; the shape is similar to a boat, with the feathers under the rump turned upwards, merging into the tail which is carried in a forward turned up position. The breast is well carried forward and more upright than other ducks, the legs being placed in a somewhat further position along the body than most other varieties. The neck is of medium length, the head full and large. The bill, legs and feet are of a reddish orange colour; the whole body plumage being of a pale creamy or canary colour throughout. The main characteristic of this valuable variety being length of body, large head, and more or less upright carriage. The Pekin is an excellent table Duck, and ranks highest of all domesticated varieties as layers, grows at a fast rate, matures early, and does not accumulate undesirable fat when kept under ordinary conditions. There is no breed which will give a better return for market purposes than the Pekin, either pure or crossed, as possessing a very large frame, this qualification is handed down to the progeny, if crossed with other varieties; an all important consideration where great size with high-class table requirements are desired. Their plumage *wears* better than the pure White Aylesbury, and the colour of the bill does not offer the same objection to keep in perfect condition as the pinky white bill of the Aylesbury. The Pekin is a breed of Ducks specially suited to the extreme warm portions of Australia, and at the present moment is being cultivated extensively for its economic virtues.

The Cayuga or Black Duck, of North America, is largely bred in the United States and Canada. This variety breeds freely with all of the domestic races. They are somewhat similar in shape to the Aylesbury, but their plumage is of a bright metallic black, with a resplendent sheen of green on the head, neck, and wings; the bill being blue-black, with a black splash or streak in the centre; the legs and feet being of a brownish cast. The necks of this variety are rather long, and the bill comes straight from the head without break, very similar to the Aylesbury. In size they quite equal either the Aylesbury or Rouen, and mature very early, are good layers and of quiet disposition. One objectionable feature this variety possesses, inasmuch as the birds after their second year often moult white feathers in the plumage, though this trait is never noticeable in the progeny bred from them until they arrive at their second year. This fault could, no doubt, be easily "bred out" by selection and preference.

The Black East Indian Duck is closely allied to the Cayuga, and, in fact, the origin of the latter is stated by some authorities to be due to the Black East Indian. They are similar in every respect except size, and the same characteristic tendency to throw white feathers after their second year is very marked. They are, however, now looked upon as a purely ornamental variety of Water-Fowl, and the smaller they can be bred with fancy points in perfection the more they are valued.

Of the wild varieties, the **Canvas Back Duck** stands foremost, and is found in Greenland, Iceland, Lapland, Siberia, and Canada right through to the winter months, then it annually takes its flight southwards as far as the Isthmus of Panama, India and Egypt. This Canvas Back Duck is considered by epicures to be the largest, handsomest, and most savoury of wild Ducks in the world, and has a flavour peculiarly its own, that of celery. They are a very large, brown-headed grey-backed bird, from which latter characteristic marking they take their name. The regular breeding place of the Canvas Back Duck is the head-waters of Chesapeake Bay in Canada. The birds flock there in millions yearly to feast on the vast beds of wild celery, growing on the flats below the mouth of the Susquehanna River, which, strangely enough, grows there and there only in abundance. Many attempts have been made to cultivate this plant elsewhere, but up to date none have been successful. Owing to the great demand thousands of their eggs are marketed and thousands of the birds are shot annually, and of late years their numbers are greatly diminished, so that probably within the next fifty years will see the extermination of the finest wild Fowl in the world, and one of the most prized delicacies of the table.

The Musk or Muscovy Duck is, without doubt, quite a distinct species from any of the domesticated races, and though it will breed freely with all of the varieties, the mules thus bred and mated together are quite unfertile. The chief point in favour of crossing the Musk Duck with others is to obtain large and quickly maturing birds, though they must be killed when young, as the flesh is inclined to become gross and coarse with age. This breed is found wild only in the warmer locations of South America, and in Brazil it is domesticated and cultivated to a great extent, being also domesticated throughout Europe and Australia. The name is probably derived from the odour emitted by the skin previous to cooking, which, however, is not noticeable when the latter operation is performed. In the wild state the Musk Duck is of very active habits, flying up into the trees when startled—often roosting on the branches all night. Their nests are frequently found built between the branches of the trees, and at other times in a hollow near the water. The greatest objection to the Musk Duck is the combative nature of the Drakes, who will fight to the death with almost any variety of Poultry. The general colour of the Musk Duck is a patchy black and white irregular marking; but they are also found of a dun colour, pure black, and pure white. They differ in head points considerably from other Ducks; the head being rather long, and in the Drake large; the top of the head being covered with long crest-like feathers, which are readily elevated or depressed by the bird when it becomes excited or alarmed. The base of the bill, cheeks and eyes being surrounded with fleshy carunculated protuberances, the Drake especially showing this development. The difference in the size of the sexes is most marked, the Drake often reaching thirteen pounds in weight, the Duck, however, rarely exceeding eight pounds. The Ducks are poor layers, but excellent sitters and mothers, mostly making their nests in a hollow under the bushes. The nest is composed wholly of feathers plucked from her own body. Wet weather has little or no effect on their hatching, though the nest is often made in a most exposed position; but the Drake must be kept away from the young Ducklings or he will often kill and eat them. The main point in favour of the Musk Duck rests on their value for crossing, and many farmers in this country breed them for this purpose.

Call Ducks are so named from the peculiar "call" or shrill note they utter. They are found in two varieties named White and Grey, being somewhat similar to the Aylesbury and Rouen respectively, though much smaller.

The Indian Runner Duck.—We are indebted for the following notes on this little known variety in this country to the kindness of Mr Harold Cadell, of "Wotonga," Beecroft, N.S.W. "This gentleman states that the Indian Runner Duck was first introduced to Australia in May, 1896, and comprised two trios shipped to the "Wotonga" yards by Messrs. Brandford and Cadell, of Woodbridge, England. As the name indicates they originated in India, and were first taken to England by a Sea Captain, who presented a pair to a friend living in Cumberland, England, and another pair were procured later, and from these four birds the present day Ducks are descended. This was about 60 years ago, and this variety have been bred pure in Cumberland

ever since, and also extensively used for crossing ; but to Mr. J. Donald all credit is due for keeping his Runners free from any out-cross and pure. The second part of the name is derived from their peculiar gait which is different from the waddle of other varieties of Ducks. The Indian Runner having a very erect carriage *a-la* Penguin, and travelling fast, in fact, running is the only word I know that will describe their mode of locomotion. The bird seems to be extinct in India ; efforts have repeatedly been made by British Fanciers to obtain fresh birds, but unsuccessfully. Their chief points are great foragers, travelling all over the paddocks in search of food, early maturity (our young Ducks laying at a few days over four months old), hardiness, non-sitters, and layers of an immense egg for the size of the Duck ; they are rather small, 4 to 5 lbs. being the average adult weight when alive. In fact, they occupy the same position amongst Ducks as the Minorca does amongst Fowls, "the best of layers." The Runners are not classed amongst the table varieties as they are small and do not put on flesh as readily as Pekins, Aylesburys or Rouens ; but for those who prefer a wild black Duck on the table, would find an excellent substitute in the Runners, we finding them all that could be desired. They came to us with a tip-top record as layers and have fully maintained their reputation, and we discovering that they were such edible birds is still another point in their favour. Mr. J. Donald, of England, has breeding pens mated up, in which are stock Ducks up to eight years of age, and finds those profitable to keep. In colour, the Drake is mostly white, but unevenly marked with dove-coloured splashes, each feather being slightly pencilled with drab, a little black round the head, neck very long and thin, beak greenish yellow. The eyes are placed very near the top of the head and the beak is free from the dished shape of the ordinary Duck, being a continuous line from point of bill to top of skull. The Duck is more heavily marked than the Drake, being pencilled all over the coloured parts with a deeper shade of drab on a fawn ground colour ; beak, dark green ; legs in both sexes a dark orange."

The Mandarin Duck is chiefly prized as a purely ornamental variety, and, without exception, they are the handsomest of all the Duck family. In shape they are smart and active. The head of the Drake is surmounted by a large long crest pointing backwards, which can be erected at will ; the colour of the crest being a gorgeous purplish-green on top, merging into a mixture of green and chestnut towards the ends of the feathers. A broad strip of rich cream or canary colour extends from the base of the bill right to the back of the neck. The back of the neck is covered with rich brownish red, the front of the neck and sides of the breast being a rich purplish colour. Across the shoulders are two clear and very distinct stripes of pure white, each stripe shaded with black ; the sides being of a greenish or pale yellowish grey evenly and minutely pencilled with dark grey, approaching black. The wings are furnished with a peculiar appendage similar to a fan, which stands almost erect. These are of a beautiful bright chestnut colour, edged with blue or green. The feathers of the back are a bright light brown, the under-parts of body being nearly white ; the secondary feathers of the wings are brownish grey, the lower edges being white ; the bill is bright crimson, the legs pale pink, and the eyes are bright black. The Duck is of a more sombre hue throughout, being mottled all over with greenish brown on body, the under-parts being of a greyish white. During three or four months of the year the Drake moults out his gorgeous plumage, assuming the garb of the Duck for this period.

The Carolina Duck is closely allied to the former variety, differing in not possessing the wing fans of the Mandarin. This Duck is a native of North America. The Drake has a red bill, with a margin of black nearly reaching the tip, with a spot of black between the nostrils ; the tip of the bill having a quick downward curve at the extremity of the upper mandible. The eyes are orange red ; the crown, front of head, and crest are a rich glossy bronze green, changing into a violet colour at the ends ; a line of pure white runs from the base of the bill similar to the Mandarin Duck, and mingling with the long plumes of the crest present a most attractive appearance. The throat and front of neck are pure white, and appear in the form of a crescent extending upwards towards the eyes. The cheeks and sides of the neck are of a claret colour, the breast dark chestnut tinged with rich claret colour, marked with white spots which gradually increase in size until they merge into the white of the under-parts. On each side of the breast, alongside the shoulders

there is a large crescentic marking of white, which is shaded by a broader marking of black behind it. The sides of the body underneath the wings are marked with fine undulating parallel lines of black on a ground colour of pale drab, the flanks being marked with wide half-circles of white, each shaded with black. The sides of the vent are of a light claret colour; the tail coverts of a hairy-like formation at the sides; these are a deep black, tinged with yellow. The back is a bronzy green colour, the scapulars green, black, and purple intermixed; tail pointed of a blackish green colour on top, but a dusker shade underneath; the wing speculum blue and green; the legs and feet a pale reddish colour; the claws strong and hooked. The Drake of this variety also assumes the garb of the Female during three or four months of the year. The head of the Duck is also surmounted by a smaller crest than the Drake; the throat and head being similarly marked with white as in the Drake; the head and neck are of a dark drab colour; the breast, a darkish brown, marked with white spots; the back and part of the wings a glossy brownish bronze. The brighter the sheen of green and gold over the Duck's body colour the more it is esteemed. The wing is marked with a spot exactly like the Male, but not so resplendent. In their wild state they generally form their nests in the hollow of trees, and, as a most peculiar and striking characteristic, when the young are hatched the parent bird carries them down to the water. This is done by the Duck taking the young one by the wing or back of the neck with her bill to the foot of the tree, then leading them to the water.

Whistling Ducks are of great beauty and have a habit of perching on trees, being known in some locations as Tree Ducks. The two principal varieties of these are the White-Faced and Red-Billed. The former is a very ornamental bird. The head from the base of the bill under the jaw and behind the eye is pure white, the back of the head and neck black, the black also extending under the throat, below this again there is a patch of pure white, the bill is black with a leaden colour at the tip or point, the front of the neck is a rich chestnut, the lower part of the neck towards the back being slightly pencilled with black, the sides of the breast are also pencilled with black upon a light brown ground colour, the centre of the breast and belly is black, thighs black, the centre of the feathers on the back and wings is of a dark brown colour edged with a lighter shade, tail black, and the legs and feet of a leaden colour. The Duck is similar to the Drake in marking, but not of the same brilliancy.

The Red-Billed variety is considered to be the most attractive of the Tree Duck or Whistling tribe. The head from the base of the bill is brown, shading into a darker brown stripe over the back of the head and upper neck, the bill is red, the cheeks and throat a drab colour, the bottom part of the neck and upper part of the breast a brownish drab colour, the breast and thighs black, the back and wings a dark glossy brown, the tail black, the feathers around the vent are black with white spots; the feet and legs of this variety are of a pinky flesh colour. The Duck as in the White-Faced runs a little smaller than the Drake, the feathering being a shade or two duller, though similar in the markings.

Australian Wild Duck.—This bird is known in different localities as the "Wild Duck," "Black Duck," "Brown Duck," and "Buff-eyebrowed Duck," and may be found in vast numbers in favourable situations throughout Australia, Tasmania, Fiji, New Zealand, New Guinea, etc. They are delicious eating, and much sought after for sport, and during the season may be obtained at most poulterers' shops. It frequents lagoons, rivers, swamps, and waterholes, and at times in spots in the bays along the sea coast. It is generally and popularly called the "Black Duck," but this is a misnomer, the ground colour of the plumage being a dark brown, the balance of the plumage ranging from buff to white, with the exception of the wing-coverts, which are of a bright steel-blue colour. The species is a very early breeder in this Colony (N.S.W.), especially if the months of February and March are wet, often commencing at the end of March and continuing until the latter part of the year. The nests are made in various positions, and are composed of a rough structure of dried grasses, twigs, etc., mixed with the downy feathers plucked from the breast of the parent bird. Sometimes the nests are found among the long grass, weeds or rushes, growing at or near the water's edge, at others in the hollow of a stump adjacent to the water, and occasionally, but not often, among the herbage growing on the plains. The eggs laid at a batch vary in number from seven to twelve,



Australian Wild (Black) Duck.

and are of a more or less pale buff colour, with a distinct tinge of green. The ground colour of the plumage throughout is a dark brown; on the head and back of head and back it is of a deeper shade than the breast and under-parts, each feather being laced with a margin of buffy-white. The head, brownish, of a deeper shade; bill, of a bluish lead colour; eyes, hazel. A stripe of buffy-white extends in a crescentic form from the centre of the base of the upper mandible over the eye and behind the ear, a second broad stripe of buffy-white extending from the base of the upper mandible below the eye, almost meeting the upper stripe at the back. The centre between the two stripes is a dark brown. The upper portion of the throat and sides of the neck are a buffy-white, slightly mottled with brown, gradually merging into the deeper tint of the back of neck. Tail, brown, with a narrow edging to each feather of buffy-white; legs, brownish-yellow.

Wood Duck.—Next in value to the "Black Duck" as an edible bird is the Australian Maned Goose, or "Wood Duck." This variety is one of the most handsome and beautifully marked species of the wild duck inhabiting Australia. Some years back they were quite common on the northern rivers of this colony, and afforded excellent sport. Although this bird is termed a Wood Duck, owing to its habit of perching on trees, and willows by the water side, and, further, that it usually breeds in the hollow limbs of trees overhanging the waters of rivers, creeks, or lagoons, it is by no means confined to timbered localities, and may be often found on the coast and open lagoons in company with the various wild varieties, such as "Teal," "Black Duck," "Musk Duck," etc.

This variety, however, is found in far greater numbers on the heavily timbered margins of rivers, creeks, and lakes inland, and invariably resorts to hollow trees for the purposes of breeding. It is found throughout Australia, with the sole exception of the extreme northern portions of the Continent. One peculiarity of this bird is the distance (where opportunity offers) from the opening in the hollow of the branch, or tree, they build the nest, instances having been known of the nests being found ten to twelve feet from the opening. The nest, unlike the other varieties of Wild Duck, is composed entirely of the downy feathers plucked from the breast of the parent bird. The eggs laid at a batch vary from eight to twelve in number. The shell of the egg is very fine in texture, slightly glossy, and of a creamy-white colour. Where the nesting-place is some distance from the water's edge, on the ducklings being hatched, the female carries one by one in her bill to the water, but where the nest is made in a horizontal branch overhanging the creek, or river, the young birds follow the mother to the entrance, and, encouraged by her calls, flutter down into the water below. The breeding season usually commences in the early Spring, continuing till quite the end of the year.

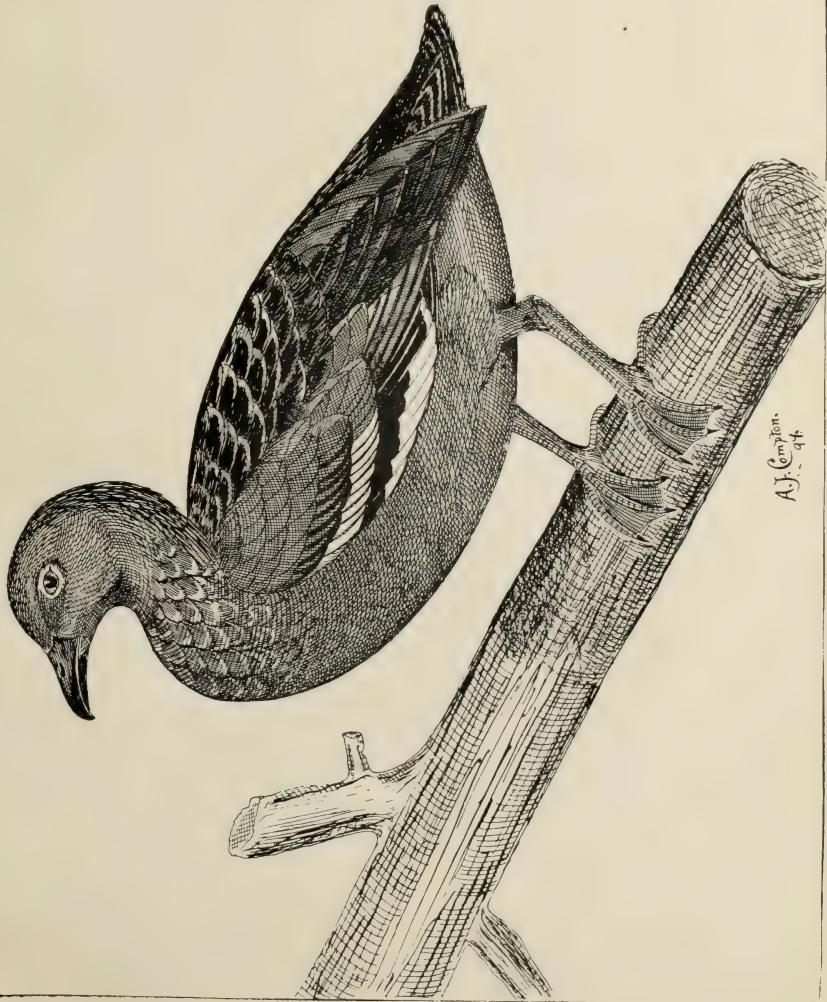
The drake's head and neck are of a rich, deep brown colour, slightly glossed with green on the top of the head. The plumes from which it derives the name of the Maned Goose, which extend down the back of the neck, are a deep purplish black; the upper part of the back is greyish, each feather broadly marked with black on either side, the lower portion of the back, rump, upper tail-coverts and tail black, the latter slightly glossed with green; the lesser wing-coverts, tertiaries, and scapulars grey—the latter broadly margined with black on the outer webs of the feather; greater wing-coverts dark grey, well tipped with white on the outer edge; wing-primaries dark brown, running darker until almost black at the tips; speculum on the outer webs of the secondaries brilliant glossy-green, the apical portion of the outer feathers white. The feathers of the breast are greyish white at the base finely pencilled with brown, the apical portion brown in the centre, blackish-brown on the sides, with a semi-rounded marking of buffy-white at the tip; sides of the lower portion of the breast and the sides grey, each feather minutely pencilled with irregular black markings; the centre of the lower portion of the breast and under-parts to the tail are black; eyes brown, of a dark shade; bill, olive brown; legs and feet, dark brown. The duck's body colour is on the top portion greyish-brown; the lower portion of back, rump, and tail, blackish, the wing speculum not being nearly so bright as the male; the head and neck are pale brown; the sides of the head, the throat, and under part of neck freckled with white markings; breast and under sides brown, each feather broadly tipped and crossed in the centre with white; centre of the breast and under-parts white.

There are a number of different varieties of the Duck family suitable for ornamental purposes on account of the beauty of form and plumage ; of these, the chief are the Falcated Duck, the Japanese Teal Duck, and the Bahama Duck. The Falcated Duck has the upper portion of the shoulders covered with long pointed feathers, which fall over the wings. This Duck has a beautiful crest of a purplish-green colour. The drake's body colour is silver-grey, which is pencilled all over with black, presenting a most handsome appearance ; the throat is white, below which is a ring of green, followed by a ring of white. The Japanese Teal Duck is closely allied to the Mandarin Duck. The top of the drake's head is blackish-grey, a white streak extending over the eye, from the eye downward there is a black stripe extending and meeting a black patch under the throat, and enclosing a white blaze in front of the face. Behind this stripe is another of white, behind which and backwards from the eye, is a crescent of bronzy-green colour, the lower points of which come forward and nearly meet on the breast. The breast is a light shade of purple, beautifully spotted with black, the colour gradually shading off to white on the belly and under-parts. The shanks and shoulders are a silver-grey, with beautiful pencilling, the shoulders having a broad crescent of white as in the Mandarin Duck. The wing spot is bronzy-green, edged above with brown, the lower edges being white. The tail and wings are greyish-brown, the shoulder coverts having long pointed feathers covering and dropping over the wings the same as the Falcated Duck, these feathers edged on one side with brown, on the other with white, the centre being black ; under the tail is quite black. The Duck is very similar in marking to the common Wild Duck or Mallard. The Bahama Duck is a very handsome and attractive variety of waterfowl, the plumage being principally composed of lightest brown, pencilled all over with a darker brown.

Of the various tribes of Wild Ducks, the Mallard is the best known. The Teal, Shilldrake, Pintail, Widgeon, etc., etc., being much rarer. The Spotted Bill Duck is domesticated in some parts of India, being considered one of the finest of table ducks. The bill is jet black, with a spot of red at the base, and a tip of yellow at the extremity. The drake's breast is a pale brown, marked all over with dark brown spots. The wing-spot or bar is a beautiful lustrous green, with two bands of black and white both above and below the spot. The duck, like most other varieties, is of a quieter plumage than the drake.

Where an artificial pond or small natural lake can be devoted to the entire use of the Ducks the birds will soon get tame, but they must not be handled, as this makes them shy and nervous. They are best secured by enclosing the pond or lake with wire netting, first pinioning them. This can easily be done by severing the first joint of the wing with a pair of scissors, taking care not to cut away the small projecting point near the elbow of the wing. The best plan in feeding the adult stock is by varying the grains—such as cracked corn, peas, barley, wheat, oats, hemp-seed, canary-seed, &c., which should be placed in shallow troughs. A plentiful supply of green food is necessary to keep them in good health, and plenty of shade must be provided. This can be done by planting bushy ornamental trees or shrubs around the banks of the pond or lake. It is best to hatch any eggs laid by the aid of hens, a small one being preferable. The ducklings should be fed at first with chopped hard-boiled egg, mixed with bread crumbs, a little barley-meal, oat-meal, or maize-meal, by way of a change. This should be placed in shallow dishes or earthenware troughs, giving only sufficient to be eaten up clean at each time of feeding. After the second or third day minced meat and earth worms should occasionally be given, green food never being neglected. The secret in breeding these beautiful wild birds is to follow nature as much as possible in their surroundings, and there are few, if any, pursuits so attractive as the breeding and rearing of these ornamental Wild Fowl.

In Judging the larger and better known varieties of Domesticated Ducks, size is the chief point, providing that plumage and bill markings are fairly good, but in judging the smaller and more beautifully feathered specimens, where size is no qualification, beauty of form and characteristic markings, and brilliancy of feather, coupled with condition, are the considerations which should weigh most in the Judge's mind when awarding prizes.



A. J. Compton.
1894

Australian Wild Maned Goose or Wood Duck.

SCHEDULE FOR JUDGING AYLESBURY DUCKS.

IN BOTH SEXES.

GENERAL CHARACTERISTICS.

Head, large, straight and long; *Eyes*, full; *Bill*, long, broad and straight, forming a nearly straight line from the top of the skull. The head and bill of a well-developed drake should measure about $6\frac{1}{2}$ inches in length, that of a duck about $5\frac{3}{4}$ inches. *Neck*, long and symmetrical; *Breast*, full and deep; *Keel*, straight and deep, forming a straight underline from breast to paunch; *Size*, as large as possible. A well-matured drake should measure 36 inches from tip of bill to end of toes, when stretched out flat on a board or table, and should weigh from 9 to 10 lbs. A duck should measure 34 inches under the same conditions, and weigh from 8 to 9 lbs. *Plumage*, bright spotless white throughout, the drake having two or three handsomely curved upward and forward feathers in his tail; *Body*, long, broad, and deep; *Legs and Feet*, very strong and thick in bone, well set, so as to balance the body in a straight line.

POINTS OF COLOUR IN BOTH SEXES.

Eyes.—Dark.

Bill.—Pinky white, or flesh-coloured.

Legs and Feet.—Bright orange.

Plumage.—Bright and glossy white, having the appearance of white satin.

A bird perfect in shape, size, carriage, colour, beak, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Shaped Skull	..	..	...	...	...	...	...	...	5.
„ Coloured Eyes	...	...	...	...	...	...	...	...	3
„ „ Bill	...	...	...	...	...	...	...	...	20
Deficient Length and Symmetry of Neck	...	...	...	...	...	...	...	...	5
„ Breast and Keel development	...	...	...	...	...	...	...	...	10
Want of Size	...	...	...	...	...	...	...	...	20
„ Symmetry	...	...	...	...	...	...	...	...	20
Bad Coloured Legs and Feet	...	...	...	...	...	...	...	...	5
Want of Condition	...	...	...	...	...	...	...	...	12

100

DISQUALIFICATIONS.

Crooked back, twisted bill, wry tail or any other evident sign of weakness or deformity, bill any colour other than white or flesh colour, plumage other than pure white; ducks so heavy behind that in the opinion of the Judge they will not breed.

SCHEDULE FOR JUDGING ROUEN DUCKS.

GENERAL CHARACTERISTICS OF THE DRAKE.

Head, long and massive; *Bill*, wide and full, well set on; *Neck*, long and tapering, slightly curved but not arched, carried fairly erect; *Breast*, deep and full; *Size*, as large as possible, a well matured drake weighing from 9 to 11 lbs.; *Plumage*, bright and glossy, with clean cut and well-defined distinct markings; *Body*, long, broad and deep; *Legs and Feet*, large in bone, well set on the body. *General Appearance*.—Great length of body, broad and square, very deep in keel, just clear of the ground from stem to stern.

POINTS OF COLOUR IN ROUEN DRAKES.

Head.—Rich iridescent green.

Bill.—Bright greenish yellow, with black spot at the tip.

Neck.—Rich iridescent green.

Ring of Neck.—Perfectly white and clean cut, dividing the green colour of the upper part of the neck from the breast colour. This ring of white must not quite encircle the neck, a small space being broken at the back.

Breast.—Rich claret colour, extending well underneath the body, distinct from the body colour, and free from white pencilling.

Flanks.—Bluish French-grey ground colour, distinctly pencilled with lustrous black, perfectly free from white or brown markings.

Stern.—Bluish French-grey ground colour, boldly pencilled with black close up to the vent, finishing in an indistinct curved line (perfectly free from white) followed by rich black feathers right up to the tail-coverts.

Tail Coverts.—Slaty-black with brownish tinge, with two or three glossy greenish-black feathers curved upward and forward in the centre.

Back and Rump.—Lustrous greenish-black from between the shoulders to the rump.

Large Wing-Coverts.—Pale clear grey.

Small Wing-Coverts.—French-grey, minutely pencilled with black.

Pinion-Coverts.—Dark grey or slaty-black.

Wing-Bars.—Two on each wing, composed of two lines of white, one in the centre of the smaller wing-coverts, the other forming a line at the base of the flight-coverts. These latter feathers should be a slaty-black on the upper side of the quill, and a lustrous blue on the lower side.

Wing-Flights.—Slaty-black with brownish tinge, quite free from white.

Legs and Feet.—Bright red.

A Drake perfect in shape, size, carriage, colour, beak, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Shaped Head and Bill	5
„ Coloured Bill	5
Badly Shaped Neck	5
Badly Formed or Broken ring of white on Neck	5
Deficiency in Colour of Breast or presence of Pencilling	10
Want of Flank and Stern Pencillings... ..	10
Tail-coverts deficient in Colour	5
Want of Soundness and richness of Colour on Back and Rump	5
Indistinct Wing-bars	5
Want of Size	20
„ Symmetry	10
Bad Coloured Legs and Feet	5
Want of Condition	10

100

DISQUALIFICATIONS.

Crooked back, wry tail, or any other evident sign of weakness or deformity, white flight feathers, absence of ring of white feathers on neck, black saddle on the head, beak leaden colour, wing primaries twisted, absence of wing-bars, broken down in stern.

GENERAL CHARACTERISTICS OF THE DUCK.

Head, Eye, Bill, Legs and Feet similar to the Drake in shape; *Breast*, deep and full; *Size*, large as possible, a well matured Duck weighing from 8 to 10 lbs.; *Body*, long, broad and square, massive in appearance every way, very deep in keel, square in carriage from stem to stern, but clear of the ground, heavy, but not down in stern.

POINTS OF COLOUR IN ROUEN DUCKS.

Head.—Rich chestnut brown, with a wide brownish-black line from the base of the beak to the neck, and very bold black lines across the sides of the head, above and below the eye, filled in with smaller lines between.

Beak.—Bright orange, with black saddle extending nearly across to each side of the beak and about two-thirds down towards the tip; the tip of the beak being black as in the drake.

Neck.—Rich chestnut brown, with a wide brownish line at the back of the neck at shoulders, shading to black up to the head.

Body Colour.—Rich golden, almond, or chestnut brown ground colour, sound and even throughout; each and every feather, excepting wing flights and bars, should be distinctly pencilled from throat and breast to flank and stern, with lustrous black or very dark brown markings, the rump pencillings having a greenish lustre.

Wing-bars.—Two bold distinct white bars, with lustrous blue marking between, as in the drake.

Wing-flights.—Brownish or slaty black, quite free from white.

Legs and Feet.—Dull brown orange.

A Duck perfect in shape, size, carriage, colour, beak, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Shaped Head and Bill	5
„ Coloured Bill	5
„ „ Head	5
Badly Shaped Neck	5
Broken or patchy ground Colour	20
Indistinct or blurred Pencilling	20
Indistinct Wing-bars	5
Want of Size	10
„ „ Symmetry	10
Bad Coloured Legs and Feet... ..	5
Want of Condition	10
	100

DISQUALIFICATIONS.

Crooked back, wry tail, or any other evident sign of weakness or deformity, white ring or approaching white on neck, wing primaries twisted, white flights, absence of wing-bars, leaden-coloured beak, broken down in stern, or so heavy that, in the opinion of the judge, the bird will not breed.

SCHEDULE FOR JUDGING PEKIN DUCKS.

IN BOTH SEXES.

GENERAL CHARACTERISTICS.

Head, large; *Skull*, broad and high; *Cheeks*, heavy; *Throat*, slightly gulleted; *Eye*, sunken; *Bill*, short, broad and thick, slightly curved, but not dishd; *Neck*, long and thick, carried well forward in a graceful arch or curve; *Body*, the shape somewhat similar to that of a small wide boat standing almost on its stern, the bow leaning slightly forward; *Breast*, broad and full, followed in underline by the keel, which should increase in depth between the legs to a broad deep paunch, stern carried just clear of the ground; *Tail*, rising abruptly from the stern, the quilled feathers turning upwards towards the neck, with a density of plumage on the rump almost covering the quills of the tail. The drake should have two or three handsomely curled feathers on the top. *Size*, as large as possible; a well-matured drake should weigh from 8 to 9 lbs., and a duck 7 to 8 lbs.; *Legs and Feet*, strong and stout, set far back, causing very erect carriage; *Plumage*,

sound, uniform, and very abundant;—an arched mane on the neck adds greatly to the beauty and character of a Pekin; *Thighs*, well furnished with long, soft, downy feathers; *Shoulders and Back*, broad; *General Appearance*, active and lively.

POINTS OF COLOUR IN PEKIN DUCKS.

IN BOTH SEXES.

Eyes.—Dark.

Bill.—Bright orange colour, free from stripes or spots.

Legs and Feet.—Bright orange colour.

Plumage.—A sound, uniform buff canary, or deep cream colour throughout.

A bird perfect in shape, size, carriage, colour, beak, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Shaped Head and Skull	5
„ Coloured Bill	5
„ Shaped „	5
Badly Shaped Neck	5
„ „ Body	10
„ „ Tail	5
Want of Size	20
Bad Coloured Legs and Feet ..	5
Faulty Coloured Plumage	15
Want of Carriage and Symmetry	15
„ Condition	10
	100

DISQUALIFICATIONS.

Crooked back, wry tail, or any other evident sign of weakness or deformity, white plumage, black spots or stripes on bill, or so heavy behind that in the opinion of the Judge the bird will not breed.

SCHEDULE FOR JUDGING CAYUGA DUCKS.

IN BOTH SEXES.

GENERAL CHARACTERISTICS.

Head, large; *Bill*, long, wide and flat, well set in a straight line with the eye; *Neck*, long, tapering, and carried with a graceful curve; *Body*, long, broad and deep; *Breast*, prominent and full; *Tail*, carried well out and closely folded, the tail of the drake having two or three curled feathers on the top; *Size*, as large as possible. A well-matured drake should weigh from 7 to 8 lbs., and a duck from 6 to 7 lbs. *Legs and Feet*, large and strong in bone, placed midway in the body, giving the bird a similar carriage to that of the Rouen; *General Appearance*, very active and lively.

POINTS OF COLOUR IN CAYUGA DUCKS.

IN BOTH SEXES.

Eyes.—Black, or dark hazel.

Bill.—A slaty-black, with a dense black saddle in the centre, but not touching the sides, nor coming within one inch of the end; the tip being black.

Legs and Feet.—Dull orange-red.

Plumage.—A bright lustrous greenish-black throughout, free as possible from a purplish sheen or white feathers. The wings, breast, neck, and back are of a more lustrous hue than the under-parts of the body.

A bird perfect in shape, size, carriage, colour, beak, legs and feet, and in perfect health and condition, to count 100 points.

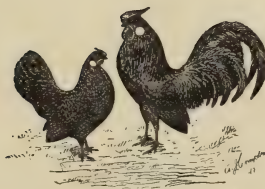
POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Shaped Head and Skull ...	...	...	...	...	...	...	...	...	5
„ Coloured Bill ...	...	...	...	...	...	...	...	...	5
Badly Shaped Neck ...	...	...	...	...	...	...	...	...	5
„ „ Body ...	...	...	...	...	...	...	...	...	10
„ „ Tail ...	...	...	...	...	...	...	...	...	5
Want of Size ...	...	...	...	...	...	...	...	...	20
Bad Coloured Legs and Feet ..	...	...	...	...	...	...	...	...	5
Faulty Coloured Plumage ...	...	...	...	...	...	...	...	...	15
Want of Carriage and Symmetry	...	...	...	...	...	...	...	...	20
„ Condition ...	...	...	...	...	...	...	...	...	10

100

DISQUALIFICATIONS.

Crooked back, wry tail, or any other evident sign of weakness or deformity, red or white feathers in plumage, bill orange coloured or dished in shape.



CHAPTER XLV.

GEESE.

THERE are four prominent varieties of Geese—the Toulouse, Embden, and Brown and White China, besides minor varieties, such as the Canada Goose, the Egyptian or Nile Goose, the Gambian Goose, the Sebastopol Goose, the Cereopsis Goose, the Indian Bar-headed Goose, the Magellan Goose, and the Sandwich Island Goose.

There seems little doubt but that all the varieties of our domesticated Geese are descended from one common ancestor, viz., the wild Grey Lag Goose, and that the present domesticated varieties and sub-varieties are the results of breeding for certain characteristics. It will be noted that the common Goose varies considerably in colour and markings, ranging from a pure white to fawn, and from a grey and white, to almost a black and white. The present day exhibition specimens of Embden and Toulouse Geese have been brought to their high state of perfection by careful selection and preference in mating for generations, and this will clearly exhibit when it is taken into consideration the wide difference existing between the two varieties mentioned, to what an almost unlimited extent, man can mould any form of bird life to his will.

One marked characteristic with the Goose, in common with that of the Duck, is that the Gander, while kept in a state of domestication, ceases to be monogamous, but while in the wild state is strictly so. This is, however, a latent trait; at times a Gander pairing up with one Goose only, taking no notice whatever of the rest of the flock, thus accounting at times for many unfertile eggs.

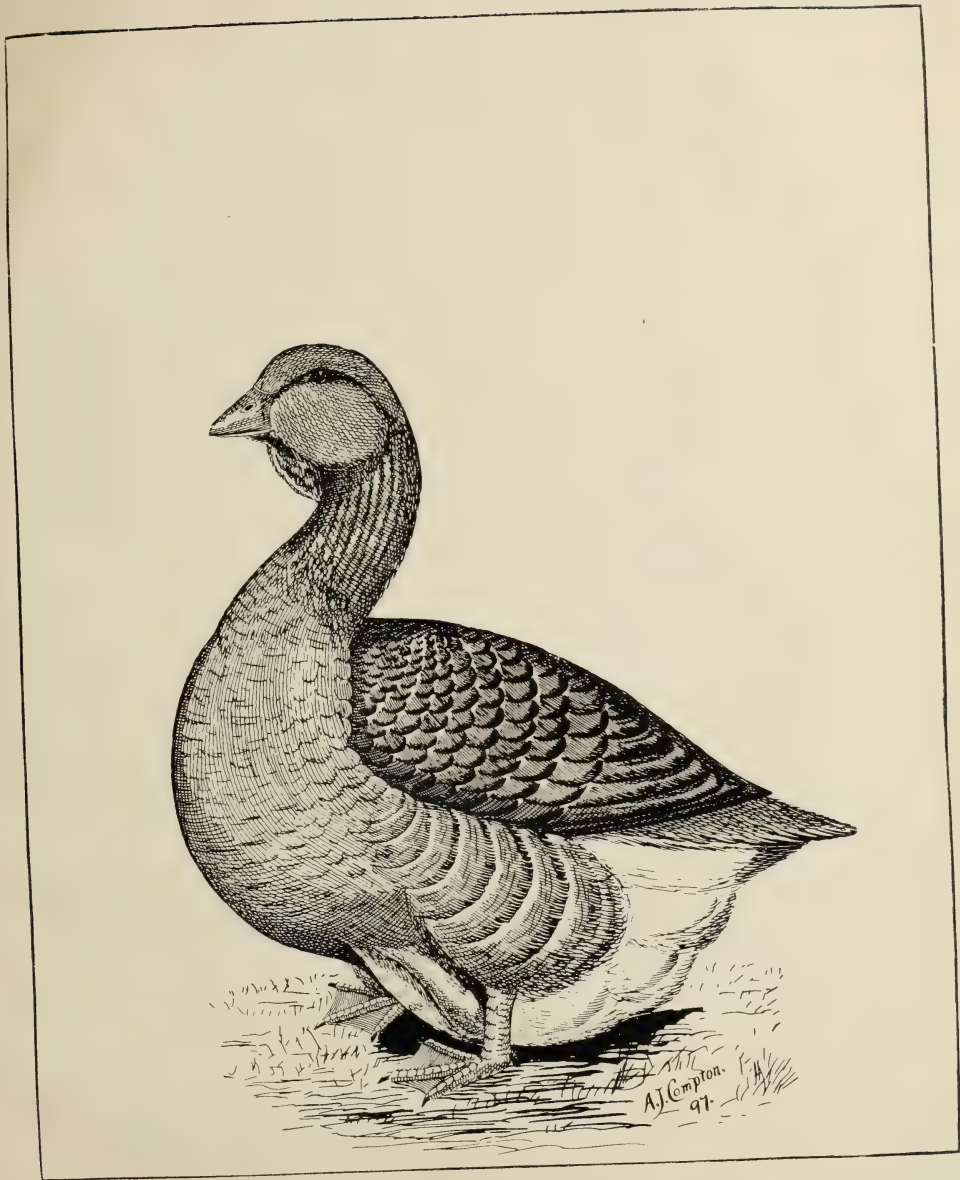
The Toulouse Goose is very compact in shape. The body and breast is of a light grey colour, the neck dark grey, shading off to a lighter shade towards the back, and the wings are similar in colour, shading off to a white on the belly and thighs. The bill is of an orange colour, the feet and legs of a deep orange colour.

The Embden Goose is a pure spotless white in plumage throughout. The bill is of a rich orange, the legs and feet a bright orange colour, and the eyes light blue. It grows to an enormous size. The female rarely lays until past the first year, but will, if a healthy specimen, lay and produce strong, healthy progeny to a very advanced age.

The Canada Goose or Aboriginal Goose of North America, differs considerably in appearance to either of the foregoing, the neck being long and slender. The head, bill, and greater part of the neck of the Canada are black, with a white patch of feathers at the throat, the feathers on the upper part of the body being a brownish-grey, with light edges. The dark upper plumage passes to nearly white on the belly, and the quill feathers of the wings and tail are almost black, the eye is greyish-brown, and the legs and feet almost black. The legs are rather long, and the carriage of the body noble and commanding.

The Chinese Goose varies somewhat in colour. The most usual colour is a greyish-brown on the back and upper-parts, passing to white on the abdomen; the front part of the neck and breast being a yellowish-grey, and with a very dark brown stripe running down the entire back of the neck, from the head to the back. The bill and legs are orange-coloured, and the protuberance at the base of the upper bill dark, or almost black. Another variety is almost white, with a pale dark stripe running down the back of the neck — this being a characteristic trait in all varieties of the Chinese Goose.

The Egyptian or Nile Goose, also known as the African, is generally grey and black on the upper-parts of the body, and pale buff or yellow, beautifully pencilled with black lines underneath, a patch around the eye, and another on the centre of the breast being of a chestnut colour; the shoulders of the



Toulouse Gander.

wings white, with a narrow black stripe, or bar, to each feather, of a beautiful metallic lustre; the wing and tail quill feathers, glossy-black. The eye is orange-coloured, the bill purple or bluish-red, the feet and legs reddish-yellow. The wings of this Goose have on the bend of the wing a strong, white, horny spur, about five-eighths of an inch long, instead of the hard knot found on most varieties of the Goose tribe. The female closely resembles the male, but somewhat smaller.

The Gambian Goose, also called the Spur-Winged Goose, has a spur, similar to the Egyptian Goose, on the joint of the wing; but this is much more developed. The beak has at the base a large excrescence, and the feet and toes are large, and long; the body plumage is black and white; the cheeks, throat, under-parts, and shoulders of wings being white; the other parts of body being a bright green-black; the eyes are reddish-brown; the bill and legs, dull red; the carriage is very tall, and upright.

The Sebastopol Goose is a pure white, the feathers appearing to grow the wrong way from the tail and saddle. The feathers are beautifully curved, and so thin in the quill that the slightest breeze blows them about.

The Cereopsis Goose is a very handsome variety. The Indian Bar-Headed Goose is chiefly distinguished by having three black bands across the back of the head, which is white. The Magellan Goose is marked with pretty stripes across the back and breast, and may be kept with safety in company with other water-fowl.

To breed Geese for market or export the best cross is between an Embden Gander and a Toulouse Goose, but splendid results may be obtained by using a pure-bred Gander of either variety with the common grey-and-white Goose. This system of crossing improves the size and stamina to a marvellous extent, the goslings growing at a great rate, and as a natural result are ready for market much earlier than the progeny of common geese on both sides.

The stock birds may be relied upon as productive up to a great age, instances having been known of their breeding well at twenty years of age.

In raising Geese for market, the Farmer must look after the minute details of the business equally as well as with ordinary Poultry, and it is compulsory to thoroughly understand the habits of Geese to succeed, which, however, are of a very contented and domestic disposition under favourable surroundings. They are very fond of sweet, tender, young grass, and in Spring will start in search of the tiny shoots growing in low-lying positions, and along the water-courses. The goslings are always on the watch for an opportunity for depredations, and will steal into a garden patch or any other enclosure where crops are growing, if they can discover an entrance. You cannot raise vegetables and goslings on the same plot of ground. They will do it for you. Being very shrewd and knowing, if they find an open gate, and are stealing into the garden, if shouted at, they will turn aside to some innocent attraction, watching closely till your back is turned, then start for the enclosure again.

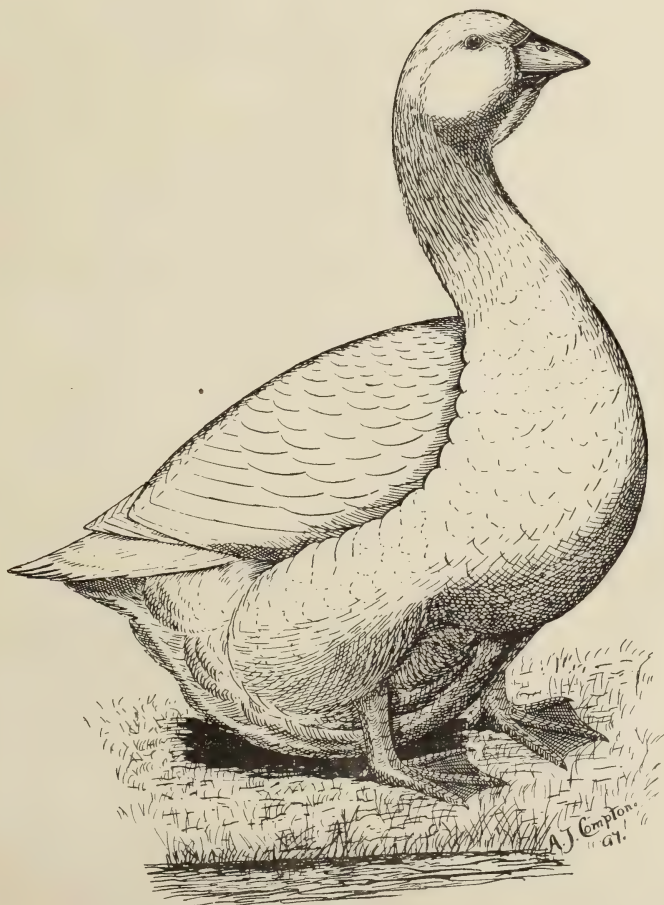
In America, the pure-bred African is considered to be the best. They will lay more eggs, mature earlier, make more flesh in a given time, and are very hardy. The Toulouse are also good layers, but, as a rule, are not so hardy, and will not take on flesh so rapidly as the pure African, though of larger size. The Embden are not as good layers as either; but, being pure white in plumage and of immense size, look very handsome and attractive. The Brown and White China Geese run a little smaller, but compensate for this by being better layers than the Embden or Toulouse. Once the variety is selected, the best and strongest specimens should be chosen for breeding, making them up into breeding pens of three geese to each gander, allowing each lot sufficient room, so as not to appear as if they were kept in confinement, as much liberty as possible being given each pen, providing a nest box for each goose, and training each goose to lay in its own nest. Feed each family near its own home, sparingly, with grain at night. The morning food should be composed of vegetables, such as cooked cabbages, turnips, potatoes, etc., mixed with corn meal, and a little beef scraps while laying, turning them out on grass runs after they have done laying, or after they wean the goslings,

providing plenty of grit and ground oyster shells while they are laying. Mark each egg laid, with the variety and breeding pen from which it is produced, so that it will be a guide as to which are the most prolific layers, and also which gander fertilises the eggs best, thus securing the best layers for future operations the following year as breeding stock. It is a fact that by studied selection, and careful breeding of Geese for a few years it is possible to double the egg-productive capabilities. A few years back thirty eggs per annum was about all expected from a good goose, but now double that number is nearer the average per goose during the breeding season, and instances have been known where African Geese have averaged over one hundred eggs each per season.

The first eggs laid are invariably the most valuable ones, and can be universally depended upon to produce the largest and most vigorous goslings. The eggs should be set as quickly as possible, as the fresher the eggs the stronger the goslings will be that are hatched. These may be set under broody hens, placing from five to seven eggs under her, according to the size of the hen. If a goose desires to sit after laying one batch of eggs, she should be taken away from her nest and broken off her broodiness, afterwards returning her to the family pen, when she will commence laying again. It is then wise to allow her to incubate the second time she becomes broody, giving her a portion of the last batch of eggs laid. It is best to test the eggs after being set upon for a fortnight. This is a good guide as to what are profitable geese and which not, and if one goose lays a poor average of fertile eggs she is better marketed, but if a large proportion are fertile never dispose of her. The oldest are the best as long as they lay, and if mated with Ganders from two to six years old no fear is likely to arise on the score of infertility. Young goslings should not be taken from the nest until they are thirty-six hours old; they should then be placed on a grass run where the grass is young and tender, placing boards around the coop, so as to make a small pen to confine them within bounds for two or three days, afterwards letting them roam about, giving them ample food, consisting of meal, pollard, and beef scraps, and preventing them having access to deep water, feeding on all the grain food they will eat until the flight feathers reach the base of the tail, then confining them in a small, dry enclosure, free from grass, and which is well shaded. It is necessary, in managing goslings, to avoid frightening them; they should always be treated in a mild, gentle manner, and ultimate success in rearing them depends in a great measure on quietness in their surroundings. If they are startled and frightened they will rush from one side of the pen to the other, and this effectually prevents them putting on flesh as rapidly as wished. Goslings are extraordinarily sensitive, and remember ill-treatment.

For about three weeks after confining them in the pen they should be fed with all the corn meal mixed with beef scraps they will eat in the morning, and at night whole corn; the meal and scraps are best mixed with *boiling* water into a crumbling mass, and should be placed in a trough, not thrown on the ground. They should be supplied with plenty of fresh, clean water to drink, and a plentiful supply of grit, sand, and charcoal placed where they can obtain at will. Three weeks of this treatment should fit them for market. Take them to the picking-room, sticking them in the mouth to kill and bleed them; pick them carefully, leaving the flight feathers and about half of the neck feathers unpicked; plump the bodies into a tub of cold water until the animal heat is all gone, washing out the mouths, re-packing them in ice-cold water, letting them remain in all night, sending into customers or the market in the morning. If any are found not fat enough to kill at this age, they are best turned out again on the grass run with the younger broods, letting them run about for three weeks, placing them in the fattening pens again. It is compulsory, if early returns are desired, that they should be marketed before beginning to shed their feathers, as this stops their growth for a time, and they will become poor in spite of the most careful attention.

The profit attached to systematic goose-raising is very great. Fully 75 per cent. of the eggs may be depended upon to hatch, and, bar accidents, there are few losses. One would just as soon think of losing a colt as a gosling. Geese, well fed and mated properly, should give, at the lowest average, about fifty eggs apiece, and show as much profit attached to their management as would be derived from any other source. Another item of profit not to be overlooked in goose-raising is the feathers, which, being easily cured, command a ready sale. The best plan to "cure" the feathers is to place them in a bag hung up in the sun



Emlden Gander.

to dry for a week to ten days. It will be found that common geese do not give the highest results, pure-bred birds being the best for show, sale, and profit, although there is in this, as in all other undertakings, a wide difference of opinion.

SCHEDULE FOR JUDGING TOULOUSE GEES.

IN BOTH SEXES.

GENERAL CHARACTERISTICS.

Head, strong and massive; *Eyes*, full; *Bill*, strong and well set, with a uniform sweep from point of bill to back of skull; *Throat*, full and well gulleated; *Neck*, long and thick; *Breast and Keel*, prominent, deep, and full; *Tail*, carried high, and well spread; *Stern and Paunch*, heavy and wide; *Body*, long, broad, and deep; *Legs and Feet*, stout and strong in bone. *Size*, as large as possible. A well-matured gander should weigh from 28 to 30 lbs., and a goose 20 to 22 lbs.

POINTS OF COLOUR IN BOTH SEXES.

Eyes.—Dark.

Bill.—Orange.

Neck.—Dark grey in colour.

Breast and Keel.—Sound grey in colour, shading lighter towards the thighs.

Back, Wings, and Thighs.—Dark steel-grey, each feather laced with a nearly white edging.

Flights.—A sound grey in colour, free from white.

Stern and Paunch.—White.

Legs and Feet.—Orange.

Plumage.—Full, bright, and glossy, and in perfect order throughout.

A bird perfect in shape, size, style, colour, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head	5
„ Coloured Eyes	3
„ Coloured Bill	5
Want of Throat Development	2
„ „ Length of Neck	5
Deficient Breast	5
„ Keel	5
Faulty Colour and Marking	10
Want of Sheen and Paunch Development	10
„ „ Size	20
„ „ Symmetry	15
Bad Coloured Legs and Feet	5
Want of Condition	10

100

DISQUALIFICATIONS.

Crooked back, crooked breast, wry tail; primaries out of order, or any other evident sign of weakness or deformity; black or white patches amongst the *grey* plumage, misrepresentation of sex in the Show pen.

SCHEDULE FOR JUDGING EMBDEN GEES.

IN BOTH SEXES.

GENERAL CHARACTERISTICS.

Head, long and fairly straight; *Eyes*, full; *Bill*, stout and strong; *Neck*, long and swan-like; *Breast*, broad and solid, with as little indication of keel as possible; *Shoulders*, broad; *Back*, straight; *Body*, long;

Tail, well carried out, and close; *Paunch*, deep; *Stern*, broad; *Legs and Feet*, stout, and strong in bone. *Size*, as large as possible. A well-matured gander should weigh from 30 to 34 lbs., and a goose from 20 to 22 lbs.

POINTS OF COLOUR IN BOTH SEXES.

Eyes.—Light blue.

Bill.—Rich orange.

Plumage.—Spotless white throughout.

Legs and Feet.—Rich orange.

A bird perfect in shape, size, style, colour, legs and feet, and in perfect health and condition, to count 100 points.

POINTS TO BE DEDUCTED FOR DEFECTS.

Bad Head	5
„ Coloured Eyes	2
„ „ Bill	5
Want of Length of Neck	10
„ „ Breast Development	20
Plumage other than Spotless White	10
Want of Size	20
„ „ Symmetry... ..	12
Bad Coloured Legs and Feet	6
Want of Condition... ..	10

100

DISQUALIFICATIONS.

Crooked back, crooked breast, wry tail, primaries out of order, or any other evident sign of weakness or deformity, plumage other than white, misrepresentation of sex in the Show pen.



CHAPTER XLVI.

PEA AND GUINEA FOWLS.

The Pea Fowl has been known from the earliest times, and possesses a greater historical interest than any known variety of Domestic Poultry. The Pea Fowl is found throughout the greater part of China, India, and the adjacent islands. The crest, and the peculiar and extraordinary appendages which form the chief beauty of the Peacock, are the plumes which grow from the back in such abundance. These virtually correspond to the tail coverts found in other varieties of Poultry, the true tail feathers being under them, which, when the magnificent plumes are in erection, are also elevated, and form a rest to support the plumes. The cock makes a peculiar noise by working the plumes together, possibly to attract the attention of the Pea hen. The head, neck, and breast of the male are a rich purple, with brilliant blue reflections, the head being surrounded with a crest composed of twenty-four feathers, which are webbed at the tip only, and are of brilliant green and blue shades. The back is of a greenish shade, the feathers being laced with a brownish copper colour; the wings whitish, and striped with black, shading off gradually into a beautiful deep blue. The primaries and feathers of the true tail are of a dark chestnut colour; the tail coverts or plumes are a brilliant glossy green, distinctly ocellated at the extremities. The thighs are of a greyish hue, and the belly and under-parts of rump black. The eyes are of a dark hazel colour, with pearly margin; the legs, brown, and spurred similarly to the Domestic Fowl. The neck is very long, slender, and snaky, the head being out of all proportion to the size of the body. The hen is of much more sombre hues than the cock, approaching a quiet chestnut brown, shaded on different parts of the body, especially the wings and tail; these are generally mottled with greyish white. The crest on the hen is much smaller and duller than the cock's. In some parts of India they are very common, Peacock-shooting being followed up as a recognised sport. These latter birds are identical with the Pea Fowl, with which all of us are more or less familiar. There are two or three other varieties of the Pea Fowl to be found, viz., White, Parti-coloured, and Black-winged, all offshoots of the common Pea Fowl and the Japanese Pea Fowl, which latter differs considerably from the common variety in colour and other points. The crest in the Japanese bird is nearly twice the size of the crest of the ordinary variety, and the feathers which compose the crest are webbed from the roots. The colour of the neck feathers is a brilliant greenish hue, margined or laced with dark golden colour, the feathers being close-fitting, and overlapping one another like a neck-covering of mail. The sheen on the feathers is marvellous, quite exceeding in brilliancy the lustre of all other varieties. The back is a beautiful bright copper-bronze, barred with lustrous green and light brown markings. The shoulder coverts resemble those of the ordinary variety, but exhibit a more lustrous shade of blue. The tail coverts or plumes are of a brilliant green, barred across with gold and bright copper-bronze reflections, and in the breeding season these barred feathers are replaced by other plumes similar to the common Peacock, but with more bronze in the lustre of the feather. The hen is similar in colour to the common variety. This variety is found in Siam, Burmah, Java, Sumatra, the Straits Settlements, but rarely further west.

The Black-winged Peacock differs from the common variety in the colour of the wings and thighs, the hens, on the contrary, being paler in colour; these are evidently a sport from the common variety. Pea Fowls are scarcely ever likely to become general favourites. The harsh scream of the cock is very disagreeable, and the cock is of a very quarrelsome disposition if kept with other Poultry, killing many. They are naturally wild in disposition, and will not do well in confinement, having a tendency to roost in as elevated a position as possible, and requiring free range to be seen to advantage. They are very ornamental adjuncts to the surroundings of a mansion, but for ordinary purposes are valueless. In managing them a cock should

never be allowed more than half-a-dozen hens, and they should be regularly fed. The hens incubate and make excellent mothers, but should on no account be disturbed, the eggs taking four weeks to hatch. The chickens, when hatched, require attention such as would be given to young Turkeys, but after a fortnight old require very little care. The hen broods them until they are five or six months old. The young ones seem to require this lengthy attention, so that it is almost impossible to rear Pea Fowls successfully with ordinary hens. The cocks do not attain full adult plumage until their third year, for the first year and a half of their lives being similar in plumage to the hens. Both sexes moult fast, but the operation affects them very much, and they seek seclusion at this period.

The Guinea Fowl is a unique variety of Poultry, and is indigenous to Africa. There are three known varieties, each having more or less distinctive characteristics, one variety being distinguished by the peculiar bony helmet on top of the head, others having a crest of feathers in place of this ornament, and a third variety, differing to the two former-mentioned, in being devoid of either helmet or crest, and having a great personal resemblance to the Vulture. The common, or domestic variety is almost identical in every respect with those which come from the West Coast of Africa; but the Vulturine Royal Guinea Fowl, as it is termed, presents quite different and peculiar characteristics. The neck and tail are much longer than in the common variety, the head and upper part of the throat are destitute of feathers, but sprinkled with black hairs, which are longest on the neck; the back of the neck is covered with velvety-brown coloured down, and the lower part of the neck is covered with long, pointed, and flowing feathers, each having a broad stripe of white down the centre, and on each side of the white a line of dull black, minutely dotted with white, with a fine outside margin of blue. The feathers of the inferior part of the back are similar in form, but shorter and broader, with a narrower line of white down the centre, and with the minute white dots disposed in oblique and irregularly transverse lines. The wing coverts, back, rump, tail, under-tail coverts, and thighs are blackish-brown, also ornamented with round, irregular spots of white, surrounded by circles of black, the spaces between being filled with spots of a duller white. The wing primaries are brown, with light shafts and spots of brownish-white on the outer web; the secondaries, brownish-black on the tips, with three imperfect lines of white lengthwise on the outer web, and three rows of irregular spots of white on the inner web. The breast and sides are of a beautiful metallic blue; the centre of the belly, black; the flanks, dull pink, with numerous spots of white, surrounded by circles of black; the bill is of a brownish hue, and the feet brown. The Guinea Fowl does not belong to the profitable races of Poultry, but rather the ornamental, an extreme difficulty often being experienced in discovering where the eggs are laid, and the Fowl is an inveterate rover, being difficult to keep within ordinary bounds. They are also very pugnacious among other Poultry. One way to surmount the obstacles likely to arise where Guinea Fowls are kept, is to set the eggs under common hens, by this means keeping them fairly tame, fixing up perfectly secluded nests for them to lay in, and placing their roosts in as elevated a position as possible. Guinea hens are excellent layers of splendid-flavoured eggs, though on the small side. These are of a dark cream colour, and very pointed at the end. The hens generally lay from 60 to 120 eggs per annum. The Guinea hen will incubate if she can steal her nest; but it is always the best and wisest plan to set the eggs under common hens, as they will then be brought up tame. The eggs take twenty-six days to hatch. The chickens at first are rather delicate, but if fed carefully every half-hour, may be successfully reared. The food as supplied to chickens answers admirably, with the addition of a little animal food. The young Guinea chickens are very attractive, the body colour being brown, beautifully striped, and the legs and bill a deep orange-red. The weight of adult birds rarely exceeds 4 lbs. The plumage being very dense, makes the bird appear larger than it really is. There are a number to be found domesticated in all parts of Australia, and those who keep them value them more from an ornamental point of view than any other.

CHAPTER XLVII.

• TURKEYS.

THE Turkey is a familiar bird to nearly everyone. Residents in the Cities notice them exposed for sale, their peculiar habits, haunts, and dispositions are only known by those in the country who breed them, and few even of those have any knowledge whatsoever of the history and origin of this valuable and useful bird, and how it came by the name it bears.

The Domestic Turkey, now bred in Europe, America, and Australia, is originally descended from the Wild Turkey, found in the forests of North America, though, however, Wild Turkeys are indigenous to some parts of Australia and South America.

The first Turkeys introduced into Europe were taken from the West Indies to Spain early in the sixteenth century, and shortly afterwards were taken to England by merchants who traded with Turkey, and thus, it is supposed, they came by their name. When first introduced into England, they were kept in parks as ornaments. At one time as many as two thousand had accumulated in the Royal Park, at Richmond, England, and in less than fifty years after their introduction they became so common that every Farmer was able to serve them up at the Christmas dinner. The Brush Turkey, found in this country and also South America, and the common Wild Turkey, found in some of the coastal districts of America, are not nearly so handsome and attractive as the North American, and neither attain the size of the latter. The White Turkeys are sports from the common kind, but by skilful breeding these have now been perpetuated, and are known as White Holland Turkeys.

The most peculiar feature in the domestication of the Turkey is the loss of size and stamina, wild birds having been killed in America upwards of 50 lbs. in weight, and this was a common occurrence. The American Wild Turkey differs considerably from the ordinary Domestic Turkey, the head and neck being a mixture of blue and red, the legs pink or red, eyes bright hazel, and the colour of the body plumage a magnificent copper bronze, changing to a dazzling iridescent green-black or purple. In this variety the majority of the feathers are, more or less, margined with brilliant black, there being no admixture of white on any part of the body. This is evidently a strongly distinctive characteristic, as, possibly, every other known colour is displayed upon the plumage. The feathers lie very close, making the bird very deceptive in weight. The hairy tuft growing on the breast of the cock often exceeds a foot in length. The female has often this appendage, but at times it is entirely absent. When present, it has not the splendour of the cock's, and rarely exceeds five or six inches in length. The Mexican Turkey differs but slightly from the American Wild Turkey, the chief point of difference being the presence of white feathers among the tail and coverts. This variety breeds with the Wild or Domestic races.

The Honduras, or Oscillated Turkey, is found in Honduras, Yucatan, and throughout Central America, this variety being, without doubt, the handsomest of all, and will breed freely with the Domestic Turkey, but requires a warm or tropical climate to do well. Many attempts have been made to acclimatise this magnificent bird throughout North America, but up to date have signally failed, though stock have been bred from them and the Domestic Turkey. This variety should do exceedingly well in the Australasian Colonies.

The Brush Turkey, or Wattled Talegalla, is found in Australia, New Guinea, Celebes, and the Philippine Islands. Their habits differ considerably from those of other varieties. This bird is also known as the New Holland Vulture, and is found in this Colony in great numbers. The Brush Turkey grows to a fair size, the plumage being of brownish-black colour, the lower part of the head and neck being covered with fleshy protuberances. The flesh is excellent eating, and the bird is easily domesticated. They make their nests in

a remarkable manner, by collecting together an immense heap of decaying vegetable matter to act as a depository for the eggs, the heat engendered by the process of decomposition acting effectually in the incubation and hatching of the eggs. The heap is constructed by the united labours of a number of birds, and are of a perfectly pyramidal form. The heap being accumulated, and time being allowed for sufficient heat to generate, the eggs are deposited at distances of about a foot from each other, being buried at a depth of from two to three feet, with the large end upwards, and in a perfectly upright condition; they are covered up as laid, and allowed to remain until hatched.

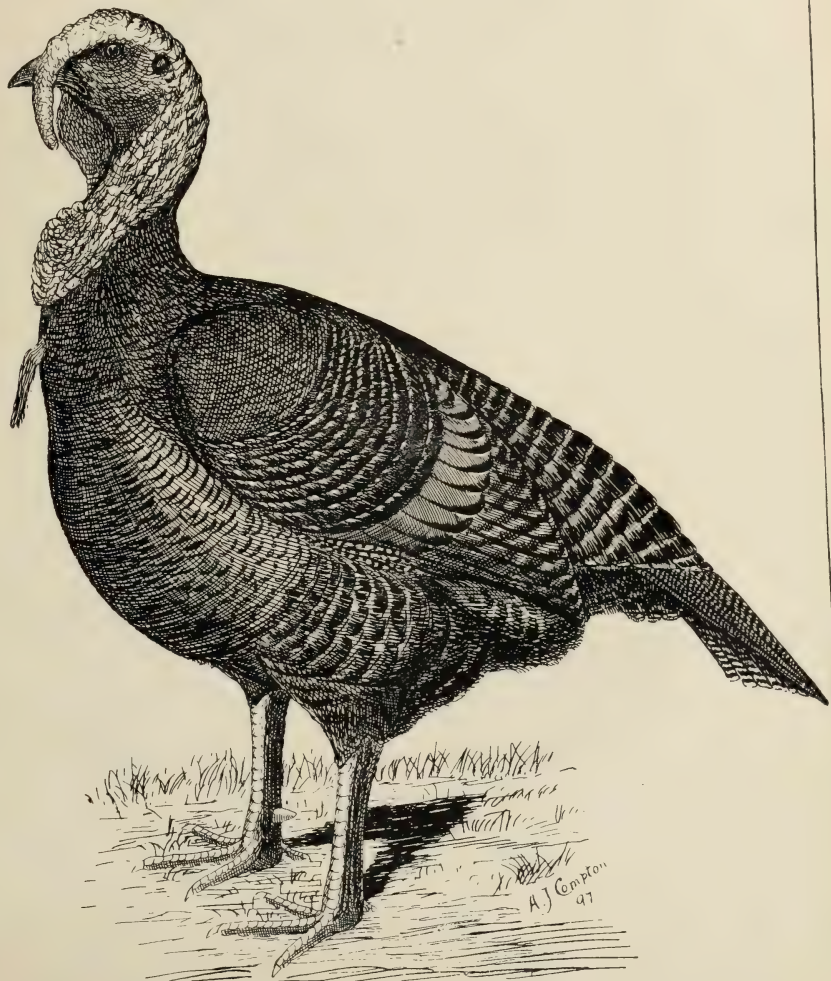
The Wild Australian Bustard, or, as it is more commonly known, the "Plain Turkey," is at once, for size and delicacy of flavour, right in the front rank of the edible birds of Australia. It is found throughout the whole Continent in favourable situations, such as the vast plains and open forest country. One peculiarity of this variety is that, with the exception of the breeding season, which, as a rule, extends from July to November, the sexes do not congregate together; other than at the times mentioned, the males and the females are to be found in separate flocks of from two or three up to even a hundred head. On the inland plains they are difficult to approach, being extremely shy and wary, and it is a rarity indeed for the sportsman, if on foot, to get within shooting range.

They, however, are easily stalked with the aid of a horse and covered vehicle, as a rule taking little notice of such. The cock bird generally attains a good size, specimens having been shot which weighed nearly 30 lbs., but this is rather above the average size, the majority of adult cocks weighing from 22 to 25 lbs. The hens are very much smaller, a well-grown adult hen rarely reaching 17 lbs. in weight, and more often 13 or 14 lbs.

The hen lays her eggs, generally two in number, on the bare ground, without the slightest shelter from either wind, sun, or rain. The colour of the eggs varies from a pale olive-green to a rich olive-brown ground colour, spotted with irregular markings of a deeper colour, though at times eggs are found of a pale blue tint, with just a few streaks or spots of pale brown. The shell is very smooth and glossy, and an average-sized egg measures about 3 inches in length by about 2½ inches in diameter.

The cock during the breeding season is continually "showing himself off," standing on a tuft, or some slight eminence. On the plain he stands erect, with the head carried high, the loose skin of the throat and neck extended to a marvellous degree, the tail fully expanded, and almost resting horizontally on the back, the wings dropped down on to the ground, and the feathers on the loose skin of the neck swinging from side to side, and almost touching the ground. He wheels and struts majestically about, courting his mate. Often the female will be found sitting on her eggs out on the bare plain, without a vestige of herbage surrounding her. When the young poults are hatched, they are dependent upon the adult birds for some time, although well able to run about the nesting place. The eggs and young birds are destroyed in vast numbers yearly by the ravages of native dogs, in addition to which, numbers of eggs are taken annually by the settlers and others. The young have a peculiar manner of secreting themselves on the approach of danger. This they do by lying perfectly flat on the ground, with their necks stretched out, remaining perfectly motionless until discovered, or all fear of danger has passed. The colour of their downy plumage, assimilating closely with the parched ground and scanty herbage found in their habitat also assists greatly in their escaping detection. The food of the Plain Turkey is very varied, consisting of insects and their larvæ, the berries and seeds of various plants, molluscs, small reptiles, field mice, and occasionally the young of small birds, and on dissection, the stomachs of birds shot during the summer months have been found packed with locusts and grasshoppers, mixed with sand.

The male and female are similar in plumage, the bill being of good length, rather fine, and pale yellow in colour, with a brown ridge along the top of the upper mandible. The crown of the head is surmounted by black feathers, which extend into lengthened plumes on the back of the head. The sides of the face, throat, and neck are of a dull white colour, finely freckled with brown, the markings being more pronounced on the lower part of the throat and back of the neck, forming pencillings. The whole of the back and tail is of a blackish-brown ground colour, finely pencilled all over with irregular markings of a lighter brown.



American Bronze Turkey Cock.

The wing primaries deep brown; secondaries and outer wing coverts, slaty-blue, each feather tipped with white, and having irregular markings of white on the outer webs of each feather. The inner secondaries are of a brownish shade. The centre and upper-parts of the wing coverts are almost black. The chest is marked irregularly with a band of blackish-brown; the under-parts of the breast are white; the under tail coverts, blackish-brown, splashed with white at the tips. The legs and feet are yellow.

The Crested Curassow.—These large birds are found in a wild state in Brazil, Mexico, and Guiana (South America), but in Guiana are frequently met with in a domesticated state, and kept as ordinary Poultry. They are most handsome and attractive, and grow to an enormous size, many specimens being as large as ordinary Turkeys. In the thickly-wooded parts of Guiana they congregate in large flocks, perching on the branches of trees. Many specimens of the breed were taken to Holland as far back as the eighteenth century, being domesticated and bred largely in that country, though of recent years they appear to have become extinct. There are some specimens at the present day kept in the Zoological Gardens of London and Paris.

In their wild state they build their nests among the trees, the nest being clumsily constructed, and the hens laying from six to seven eggs at a batch, the eggs being nearly as large as an average goose egg, the shells being very strong and thick. There are two or three varieties of the tribe, the best known being the Black Curassow, with lemon coloured crest, and white underneath, though the most attractive of the race is pencilled in plumage. The latter are rounder and plumper in form than the Blacks, and their colour is a marvellous combination of beautiful markings, the ground colour of the back, wings, and tail being black, with olive-green reflections, and with sharply-defined pencillings of buff across each feather, the breast and under-parts being marked similarly, but the ground colour a trifle lighter. The feathers on the head are buff; the neck, satiny-black; the crest, white, each feather tipped with black; the beak, black, with yellow skin at the base; and the legs and feet are red.

They are very graceful in their movements, and with a constant play of the crest, excite admiration, and when kept in confinement for a short time become very confiding. Being such splendid birds, and of equal possibility of domestication as the Pheasant or Turkey, and the flesh being, if anything, whiter and superior to the Turkey in flavour, there is little doubt that in a few years at most the Crested Curassow will be numbered among our domesticated Poultry.

The English Counties of Cambridge and Norfolk send a very large number of Turkeys to the London market, the Cambridgeshire Turkey being generally the larger of the two, longer in leg, and larger in bone, and of a bronzy-grey colour. The Norfolk Turkey is black, spotted here and there with white spots on the wings.

The White Turkeys are very beautiful, though rather delicate. The tuft on the breast of the cock is black, and shows off to great advantage contrasted with the snow-white plumage.

The now well-known American Bronze was produced by crossing the North American wild variety with the common Turkey, and by careful selection and preference in breeding, the result is a bird possessing, to a great degree, the splendid plumage of the wild variety, with increased size. Some of the best strains of the American Bronze average 30 lbs. for cocks, and 16 to 20 lbs. the hens; but these weights are often considerably exceeded, reaching as high as even 48 lbs. in cocks. Birds weighing from 35 to 40 lbs. being frequently bred.

Young Turkeys are generally recognised as being difficult to rear; but much of this can be traced to the amount of in-breeding practised, and it is a noted fact that in instances where a fresh cross, such as that imparted by the American Bronze, is introduced, the young birds are much hardier in constitution. At the same time there is a time in their lives, just before the young birds show the red development about the neck and throat, when, if they get wet, disaster will almost certainly follow. After that period has passed, they become very hardy, and if properly fed and cared for, will come along at an amazing pace. The young Turkeys when hatched should be fed often, a little at a time, and for the first two or three days hard-boiled eggs, with no other ingredients added, beyond dandelion leaves or boiled nettles, minced up very fine. The

curd of sour milk, with young onion tops minced fine, and mixed, will also be an excellent food for them. This should be placed out of the reach of the hen, who should be given whole grain. When the young Turkeys are about a week old, bread crumbs, barley meal, and oatmeal, with boiled potatoes and crushed wheat should be given, which should be continued for a week or ten days, then they should be fed with cracked corn, or crushed wheat.

Fresh cool water should be supplied frequently, and if fresh milk can be obtained this will be excellent for a change.

When the young Turkeys are about a month old the hen may be allowed her liberty, if the weather is fine: but if damp or wet, it is better to confine her and the brood in a dry outhouse, as wet is almost fatal to them in their earlier stage. The Turkey does not fully attain its greatest weight until the third year, and the larger and more vigorous the cock bird is the better results will be obtained.

SCHEDULE FOR JUDGING TURKEYS.

(As adopted by the Turkey Club, from the American Standard.)

BRONZE TURKEYS.

THE COCK.

Head.—Long, broad, carunculated, rich red. *Beak.*—Strong, curved, well set in the head, and in colour light horn at the top, and dark at base. *Eyes.*—Dark hazel, bright, and clear. *Face and Jaws.*—Rich red. *Wattle.*—Large, pendent, and in colour rich red. *Neck.*—Long, and curving backwards towards the tail. *Plumage.*—A rich, lustrous, bronzy hue. *Back.*—Somewhat curving, rising from the neck to the centre, and then descending in a graceful curve to the tail; plumage, a brilliant bronzy hue, which glistens in the sunlight like burnished gold, each feather terminating in a narrow black band, which extends across the end. *Breast.*—Broad, and full; plumage, dark bronze, with a lustre in the sunlight similar to that of burnished gold. *Body and Fluff.*—Body long, deep through the centre, and handsomely rounded; plumage, black, beautifully shaded with bronze, but not so decided or so rich as the breast; fluff, short. *Wings.*—Large, and powerful; bows, black, with a brilliant bronzy or greenish lustre. *Primaries.*—Black, or dark brown, evenly and regularly pencilled across with bars of white or grey, the more evenly and regularly the better. *Secondaries.*—Black, or dark brown, evenly and regularly pencilled with bars of white or grey, the colours changing to a bronzy-brown as the centre of the back is approached, with but little intermixture of white on primaries or secondaries very objectionable. *Coverts.*—Beautiful rich bronze, the feathers terminating in a wide black band, forming a broad, bronzy band across the wings when folded, and separated from the secondaries by a glossy-black, ribbon-like mark, formed by the ends of the coverts. *Tail.*—Rather long, and in colour black, each feather irregularly pencilled with narrow bands of light brown, and ending in a broad black band, with a wide edging of dull white or grey; coverts, black, or dark brown, each feather irregularly pencilled with narrow bands of light brown, ending in a wide black and bronze band, extending across the feather, with a wide edging of dull white, or grey; the more distinct the colours throughout the whole plumage the better. *Legs and Toes.*—Thighs, long and stout; plumage, similar to that of the breast, but the colours less rich and decided. *Shanks.*—Large, long, and strong: in young birds, dark, approaching black; in adult birds, usually of a pinkish hue, or flesh colour. *Toes.*—Straight, long, and in colour the same as the shanks.

THE HEN.

The entire plumage is similar to that of the cock, but the colours are not so brilliant, or so clearly defined, and the edging of the feathers is generally a dull white, or grey.

Standard Weights.—Cock, 34 lbs.; cockerel, 22 lbs.; hen, 22 lbs.; pullet, 14 lbs.

DISQUALIFICATIONS.

White feathers in any part of the plumage; wings, clear black, or dark brown; colour of back, tail, or tail coverts, clear black, brown, or grey; decidedly wry tail, crooked breast, deformity of any kind; cocks weighing less than 22 lbs., hens weighing less than 14 lbs.

BLACK TURKEYS.

THE COCK.

Head.—Long, broad, carunculated, rich red. *Beak.*—Strong, curved, well set in the head, and in colour dark horn, or slaty-black. *Eyes.*—Bright, clear, and in colour dark hazel. *Face and Jaws.*—Rich red. *Wattle.*—Large, pendent, and in colour rich red. *Neck.*—Long, and curving backward toward the tail. *Back.*—Somewhat curving, rising from the neck to the centre, and then descending in a graceful curve to the tail. *Breast.*—Broad, and full. *Body and Fluff.*—Body, long, deep through the centre, and handsomely rounded; fluff, short. *Wings.*—Large, and powerful. *Tail.*—Rather long. *Legs and Toes.*—Thighs, long, and stout; shanks, large, long, and strong, and in colour dark lead, or slaty-black; toes, straight, strong, and in colour the same as the shanks. *Plumage.*—Lustrous black throughout.

THE HEN.

The entire plumage is similar to that of the cock.

Standard Weights.—Cock, 27 lbs.; cockerel, 18 lbs.; hen, 18 lbs.; pullet, 12 lbs.

DISQUALIFICATIONS.

Feathers other than black in any part of the plumage, decidedly wry tail, crooked breast, deformity of any kind; cocks weighing less than 18 lbs., hens weighing less than 12 lbs.

WHITE TURKEYS.

THE COCK.

Head.—Long, broad, carunculated, rich red. *Beak.*—Strong, curved, well set in the head, and in colour pinkish or flesh. *Eyes.*—Bright, clear, and in colour dark hazel. *Face and Jaws.*—Rich red. *Wattle.*—Large, pendent, and in colour rich red. *Neck.*—Long, and curving backward towards the tail. *Back.*—Somewhat curving, rising from the neck to the centre, and then descending in a graceful curve to the tail. *Breast.*—Broad, and full. *Body and Fluff.*—Body, long, deep through the centre, and handsomely rounded; fluff, short. *Wings.*—Large, and powerful. *Tail.*—Rather long. *Legs and Toes.*—Thighs, long and stout; shanks, large, long, and strong, and in colour white, pinkish, or flesh colour; toes straight, strong, and in colour the same as the shanks. *Plumage.*—Pure white throughout, except the beard, which is deep black.

THE HEN.

The entire plumage is similar to that of the cock.

Standard Weights.—Cock, 26 lbs.; cockerel, 16 lbs.; hen, 16 lbs.; pullet, 10 lbs.

DISQUALIFICATIONS.

Feathers other than white in any part of the plumage, decidedly wry tail, crooked breast, deformity of any kind; cocks weighing less than 18 lbs., hens weighing less than 10 lbs.

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Tail—Shape (3), Colour (5)	8
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CHAPTER XLVIII.

SWANS.

THE Swan has a very wide range, being found pretty well throughout the whole world, and we in Australia have a well-marked and quite distinct species entirely indigenous to this country. Swans are migratory in their habits, though occasionally individual specimens will remain in the same localities throughout the year. They have a seeming difficulty in rising from the water when startled, half flying and half walking, and striking the water with feet and wings for some distance before they can properly rise. When on the wing their powers of flight are considerable. When again descending they gradually approach their favourite element in an oblique direction, striking the water with feet spread out, to check their speed, often skimming along, partly on the surface, for twenty yards or more. Swans are monogamous in their habits, generally pairing for life, exhibiting the greatest affection for each other, and defending one another in the most courageous manner.

In preparing the nest both take a part, the male collecting all of the materials used in the formation, the female constructing the nest. The nest is a very large affair, composed principally of water plants, lined inside with finer grass. The eggs are generally laid from six to nine in number, which are very thick in the shell, and vary in colour from a dirty white to pale green. Some difference of opinion exists as to time of incubation, some authorities stating thirty-five or thirty-six days, others up to forty-two. The young cygnets when hatched are covered with down, and are, as a rule, taken to the water when but a day or two old, the parents taking the greatest care and interest in their welfare until they have grown sufficiently to look after themselves.

The Mute Swan, or, as it is generally known, the White Swan, is indigenous to Northern Asia and Europe, but has been acclimatised throughout the world. This variety is the most shapely and graceful of the Swan tribe, the bill being red, the large protuberance at the base of the bill being black; the eyes are brown, the feet of a brownish-grey colour, the body plumage throughout being a spotless pure white. Its name is a misnomer, as the voice is very low and soft, with a peculiarly soothing, melancholy tone. The young cygnets when hatched are covered with grey down. There is another variety which closely resembles the Mute Swan in appearance; this is the Polish Swan. The formation of the cranium, however, is slightly different, and the young ones hatch white, not grey, so that in all probability they are a distinct variety.

The Whistling Swan is of smaller size than the Mute or White Swan, and differs in having a yellow bill, without the large protuberance at the base. The neck is much shorter and thicker, its chief feature being the peculiar musical voice that this bird possesses. A number of these birds in company passing through the air give forth a truly delightful sound, resembling the notes of a violin, or silvery, trumpet-like sounds heard at a distance, being very tuneful and melancholy.

Bewick's Swan is, again, a still smaller white bird. The neck is moderate in length, but very slender. This bird is very rare, and is of an exceedingly shy and timid disposition, so much so that it has never been known to breed in captivity.

The Black Swan is indigenous to Australia, but is now known as well as the Mute Swan. No difficulty arises in acclimatising them, and they may be found throughout Europe in the different Zoological Gardens and private parks. The bill of the Black Swan is red, tipped with white; the eyes, bright vivid red; the legs and feet, black; the body plumage, a dull black; the edges of the majority of the feathers shading off to a paler tint. This bird has a very graceful outline, long, fine, and slender neck, and is very graceful and

stately in its movements while on the water, moving about with no apparent effort in any desired direction. They breed in captivity, no difficulty arising on that score if not interfered with, the young cygnets being extremely hardy and vigorous. The male is of a more or less overbearing disposition towards the smaller tribes of waterfowl inhabiting the pond or lake, and it is better to allow them a sheet of water partitioned off from other ornamental varieties.

The Black-Necked or Chilian Swan is indigenous to South America. The bill of this variety is of a leaden hue, with an extra large protuberance at the base, red in colour; the eyes are brownish, the legs and feet reddish-orange. The plumage of head and neck is a jet black, relieved by a narrow stripe or streak of white across the eyes, the rest of the body plumage being pure spotless white. This swan has a distinct carriage of the neck whilst swimming, being held erect and almost straight. They are easily domesticated, breeding well, the young cygnets growing at a very fast rate.

Very little instructions or advice can be given on the management of Swans. They can do this better themselves, and, in fact, will not brook interference during the process of incubation; and, as they are so large and powerful, any interference on the part of man becomes dangerous. The birds should occasionally be given a little grain, and when the young cygnets are hatched food such as coarse oatmeal or soaked biscuit should be placed in troughs containing water, where their privacy will not be intruded upon, and which they can obtain at will. It is possible to hatch the eggs under geese. By this means the cygnets would be brought up much tamer, but there is always great danger attached to the procuring of the eggs from the natural nest. The parent birds will attack anything that approaches. A blow from their wing would break a man's arm, so that it is surrounded with some difficulty, and is a risky proceeding.



CHAPTER XLIX.

ORIGIN OF DOMESTIC POULTRY.

THE origin of our Domestic Poultry is certainly a question of more than passing interest, and, though various theories have been brought forward from time to time, their origin is still a matter for conjecture. Many renowned naturalists (among whom the late Mr. Charles Darwin stood pre-eminent) devoted a great deal of attention and study towards solving the problem of the origin of the Domestic Fowl, but, so far, none have yet conclusively proved their respective arguments.

Most, however, agree that there is only one distinct breed of Wild Poultry, viz., *Gallus Bankiva* or *Gallus Ferrugineus*, and that the varieties known to naturalists as *Gallus Stanleyii*, *Gallus Soneratii*, and the Javanese Jungle Fowl, or *Gallus Furcatus*, are off-shoots or sub-varieties of the *Gallus Bankiva*.

Taking *Gallus Bankiva* as being fully recognised as the one wild breed, as to which little doubt exists as being the progenitor of *some* of our Domestic Poultry, and which is clearly proven by analogy, it is found that this wild breed is widely distributed throughout India, Burmah, Siam, Annam, the Malay Peninsula, and the islands in proximity; and, though generally resembling a rather small, low-set Black-Breasted Red Game Fowl, with the tail carried in a more drooping position than the latter, there is still a marked difference in size and colour in the Fowl as found in different localities. These variations support the theory that the *Gallus Bankiva* is in reality the progenitor of the major portion of our Domestic Breeds and the sub-varieties mentioned, variations of the *Gallus Bankiva*.

Strong arguments in favour of this theory are that the *Gallus Bankiva* will breed freely with the Domestic Fowl, the hybrids being fertile with either parent, and will also breed *inter-se*; and, though the crow of the cock is scarcely as prolonged as in the Domestic bird, the voice of the hen is almost identical with that of the Domestic hen, and, further, it has been proved that the *wild* breed is quite capable of domestication.

That the *Gallus Bankiva* may or may not be the sole progenitor of our present-day Poultry few are qualified to dispute, as any experienced breeder is fully aware what problems reversion will at times confront him with if his strain is crossed, and that the variations in any breed, owing possibly to climatic conditions and environments, and a sudden infusion of alien blood, will probably account for the sports produced. On the other hand, in examining *Gallus Bankiva* and its three supposed off-shoots, one is confronted with the peculiarities and latent characteristics present in our various breeds of Poultry, which seemingly strengthen the supposition that to one or other of the so-called sub-varieties, or to still another wild breed quite distinct from *Gallus Bankiva*, they actually owe their origin.

It is surprising that there should be such a wide difference in shape and carriage between *Gallus Bankiva* and the true Indian fighting cock, the Aseel, more especially as naturalists assert that the former is the progenitor of the Game races, of which the latter is exceptionally typical, being possessed of extraordinary prepotent powers, and marked with a most pronounced characteristic in the triple comb, closely approaching that found in *Gallus Furcatus*, though in structural development quite unlike that breed. The *Gallus Bankiva* invariably possesses a single comb with even serrations, and, though naturalists uphold the theory that the Game tribes are descended from this wild breed *only*, the wide difference in their structure seems to point that to quite another distinct wild breed they owe their existence. This difference in shape and skull formation is very marked in the Malay Fowl, and, according to Temminck, *Gallus Giganteus* is responsible for the latter. If this theory is correct, the origin of the Aseel should not be difficult to determine.

It will be noted that the Brahma, Cochin, and Aseel are almost identical in shape of skull, the Brahma and Aseel exactly similar in shape of comb, while at the same time there is not the slightest resemblance in structural development and carriage of the latter with either the Brahma or Cochin.

We have repeatedly noticed in certain strains of British Game Fowls—both the old-fashioned stamp and the modern bird—that the cocks, prior to the actual moulting season, moult out the long, flowing feathers of neck and saddle, developing a short, close-fitting hackle, similar to the hen's hackle of the variety, this being replaced later by the flowing hackle feathers appertaining to the sex of the bird, this same characteristic being found in *Gallus Bankiva*. That, in all probability, some strains of Game Fowls are descended from *Gallus Bankiva* seems feasible enough, as the latter breeds freely with the Domestic Fowl of India, the hybrids being fertile with either parent, and also *inter-se*. This latter is a strong proof of "unity of species." The fact that it is not the whole of the Game tribe that develop the peculiar hackle feathers in the cocks prior to moulting proper, points to the conclusion (in conjunction with other variations) that all are not descended from one common ancestor, and that the yellow-fleshed varieties of the Game tribe are most likely descendants of *Gallus Bankiva*, while the white-fleshed varieties are probably descended from some species now extinct, this in itself being the actual progenitor of *Gallus Bankiva*.

The division in the habitat of the wild varieties is very pronounced, those of the white-fleshed being found towards the west, while the yellow-fleshed are confined to the south and east. The Rhodian Fowls, and those of Media, Chalcis, and Persia, were noted for the whiteness and delicacy of their flesh, while we note that, almost without exception, the Asiatic varieties are yellow-fleshed.

As before remarked, the *Gallus Bankiva*, in different parts of India, varies considerably in colour, ranging from a close resemblance to the Black-Breasted Red Game to quite a yellowish-brown; the colour of the legs also varies from an olive-green to a brilliant yellow. These differences in a wild breed, in addition to their non-uniformity of size, at once divides this breed into two or more families, thus clearly accounting for the marked difference in their descendants, and at the same time explaining the variations in colour and characteristic traits of the race of Poultry which resembles them most closely in shape and colour; and the latter, if not carefully mated each successive generation to keep up to the standard of colour laid down, will revert in a generation or two to a bird almost identical with *Gallus Bankiva*.

Gallus Stanleyii.—This wild breed, or sub-variety of *Gallus Bankiva*, is indigenous to Ceylon, Java, and the woods of the Western Ghats, India, and differs chiefly in the cock being a yellowish-red in breast, yellowish-orange neck hackle, and bluish-purple saddle hackle, the latter feathers being broad and rounded at the extremities. The comb and wattles are red, the comb being tinged with yellow in the centre. The hen of this variety is of a Partridge colour, and her comb is very small. In both sexes the eyes are pearl in colour. The cock of this variety breeds with the Domestic hen, but there is some doubt as to the fertility of the hybrids, and the pure stock has never been known to breed in confinement. In the wild state the hen lays from eight to twelve eggs at a batch, which are of a tinted colour, mottled with specks of a darker shade. The chickens, when hatched, are almost identical with the chickens of the Domestic Fowl. This breed is practically identical with *Gallus Bankiva*, though the crow of the cock is somewhat different.

Gallus Soneratii, or Sonerat's Jungle Fowl, is quite distinct from either *Gallus Bankiva* or *Gallus Stanleyii*, and is confined to the more southern portions of India—Hyderabad, Mysore, and Madras—and is often shot for sport, being locally known as Jungle Fowl. This breed closely resembles the common barn-door type of Domestic Poultry, being almost identical in shape and general characteristics, with the exception of the comb of the cock, which is very slightly serrated, and the hen being destitute of either comb or wattles. The plumage of the cock is quite distinct from either *Gallus Bankiva*, *Gallus Stanleyii*, or the Domestic bird, the neck hackles being a dark greyish colour, the shafts being golden, the latter expanding at the tips into a flat, horny scale, which glistens in the sun. These scales or plates are mostly of a bright orange colour, but at times are barred with various hues. In some specimens the scales or plates on the hackle feathers are in duplicate, one above the other, on the same shaft. The breast and back feathers are generally a combination of grey and bluish-dun, though at times some yellow is present in the neck and saddle hackles. The tail is a brilliant greenish-black, and the legs and beak yellow. The hen of this variety is a brownish-drab on back, wings, and tail; the throat almost pure white, gradually merging

into a greyish-white on the breast and under-parts of the body. The *Soneratii* will breed freely with the Domestic Fowl.

Gallus Furcatus, or Javanese Jungle Fowl, is one of the most strongly-marked and peculiar varieties of Wild Poultry. The head is long and narrow; the comb of the cock is bluish at the base, merging into a violet at the top, and is very small and without serrations. The face is red, and the eyes are very prominent, and a distinctly-marked characteristic is the wattle, which is in the form of a single piece of skin hanging down from the centre of the lower mandible. The colour of this single wattle is yellowish towards the ear-lobes, merging into a dark crimson or purplish shade towards the front. The neck hackle feathers are broad and rounded on the lower edge, and are of a brilliant green colour, banded with black; these reach well down the back. The saddle feathers of the cock are similar in colour, but laced with yellow. The shoulder coverts and wing-bows are also similar, but edged with golden-green. The wing secondaries are orange-red, and the primaries black. The breast, thighs, and under-parts are almost black, with a bluish sheen, and the tail glossy greenish-black. The two top feathers of the true tail, and also the two main sickles, branch out laterally, from which the bird derives the name of the fork-tailed cock. The hen of this variety has neither comb nor wattles. The neck hackle is a greenish colour; the back, wings, and tail are brownish-drab; and the throat, breast, and under-parts are of a greyish colour. The colour of the legs in both sexes varies from a bluish-grey to a pinky-flesh colour.

In reviewing the four wild varieties mentioned, it seems probable that the original type is still further back, and that it may have diverged into various sub-varieties, of which these form a part, and, later on, developing into some of the more prominent breeds with which we are now familiar; but it is evident that the wild breed classified by Temminck as *Gallus Giganteus* must have been allied to the progenitor of some of the Asiatic tribes, as these breeds distinctly exhibit peculiarities and possess latent characteristics quite independent of either *Gallus Bankiva*, *Gallus Stanleyii*, *Gallus Soneratii*, or *Gallus Furcatus*, and, in summing up the various theories brought forward as to the origin of our Domestic Poultry, it seems feasible enough that the *Gallus Bankiva* is the progenitor of *one* section of the Game, it being proved that they closely resemble that most typical of all breeds, and, though another characteristic trait quite foreign to *Gallus Bankiva*—the fork-tail of *Gallus Furcatus*—is present in many specimens recognised as descendants of the former, it rather strengthens the theory that the *Gallus Furcatus* is a sub-variety of *Gallus Bankiva*, breeding freely with the latter, and thus by this means the characteristic trait is perpetuated, and, owing to the tendency to reversion present in a more or less degree in every variety of Poultry, this point is occasionally cropping up and asserting itself.

Taking *Gallus Furcatus*, it will be found that, although this breed varies to a great extent with the Domestic Fowl, there is sufficient evidence that strongly-marked characteristics of the former are frequently met with in specimens of the various breeds of Poultry.

The tendency to the single or median wattle is found in some strains of Brahmas. The fork-tail is a pronounced feature in the same breed, and also in some strains of Game Fowls, more especially the modern type; the presence of transverse bands of purple on the cock's green-black sickle feathers of some breeds, such as Brahmas, Malays, and Indian Game, and some strains of Modern British Game; the purplish-blue comb, wanting serrations, found in the Silky Fowl; the purplish or gipsy face, comb, and wattles in Black and Brown-Red Game Fowls; and the crowning fact, that if any of the Asiatic breeds are crossed with almost any variety, some proportion of the progeny will exhibit the pea or triple comb, thus clearly proving that these are latent characteristics which will assert themselves by reversion to the original type of *Gallus Furcatus*.

The startling resemblance of the *Gallus Stanleyii* to the Domestic Fowl is, perhaps, the most striking of all, the chief difference being the peculiar crow of the cock, though breeders are well aware what a vast gulf lies between the crow of the Cochin and that of the Hamburg. One strong feature in favour of *Gallus Stanleyii* being at least the progenitor of *some* of our Domestic breeds lies in the undisputed fact that, in the latter, reversion in colour invariably tends towards the red or brown breast in the cock rather than to the

black, and this point is more strongly pronounced in the *Gallus Stanleyii* than in any of the other wild breeds.

The *Gallus Soneratii* has been successfully crossed with the domestic hen, the hybrids breed with either parent, and also *inter-se*; and though this breed is possessed of such peculiar plumage, it is astounding how quickly the horny plates of the plumage become absorbed, and disappear altogether when crossed, so that, even though this breed may not have been the direct ancestor of any one variety of our Domestic Poultry, it may, at the same time, be an off-shoot of one of the original wild breeds, and although the plumage presents such a marked variation from the normal type, it is scarcely sufficient—and by no means conclusive—evidence of distinct species.

In addition to the wild breeds acknowledged, some little claim must be allowed on behalf of a bird with feathered shanks, and this points to a bird somewhat of the Langshan type, as *one* of the original ancestors of the Asiatic breeds. It is well known that the anatomy of the Langshan is totally different to other races of Fowls, and this breed possesses exclusive characteristics which never vary, and which are transmitted to their offspring from generation to generation with astonishing fidelity, so that they may be looked upon as being allied to some other and larger wild breed indigenous to Eastern Asia; and, as further evidence, there are some of the purest strains of Langshans in which a small proportion of the progeny come clean-legged.

The "Jop," or Sacred Bird of China, ancestry dates back some centuries before the Roman Game Fowls were known, and this is fairly strong evidence that the Asiatic breeds and their off-shoots are more or less composed of the blood of some quite distinct variety, crossed with either *Gallus Bankiva* or *Gallus Furcatus*.

It has been proved how easily the leg-feathering of a breed can be perpetuated, and equally as how easy to breed it quite out. This lends colour to the supposition that some feather-legged breed, probably crossed with one or other of the wild varieties recognised by naturalists, produced the *Gallus Giganteus* of Temminck, and thus, through various crosses and variations, became fixed, giving us the original stock of Langshans, Cochins, Brahmans, Malays, and Aseels.

The shape of skull in the Brahma, Cochin, and Aseel, though totally different to other breeds, may have become fixed owing to some previous variation, or by natural selection and preference in mating for generations, but even this strongly-pronounced characteristic may be bred out quite easily, and just as easily brought back again in entirety by the aid of a distinct cross. The evidence available does not allow it to be stated with absolute certainty that the wild breeds recognised by scientists are *alone* wholly responsible for the different varieties of Domestic Poultry, but rather leaves it an open question as to whether there was not *another* larger wild breed—the actual progenitor of those now known—which possibly has become extinct, some of its characteristics being strongly represented in the Asiatic breeds, which are *quite alien* in many important respects to the wild breeds recognised by naturalists as the progenitors of the Domestic Fowl. It will be noted how vastly different the early Cochins and Brahmans were to the present day specimens; and, though unquestionably the latter exhibit unmistakable traces of *Gallus Furcatus* blood, it is plainly evident that still another variety *must* have been a part component of these breeds.

In conclusion, there seems little doubt that the various breeds of wild Jungle Fowls indigenous to Southern and Western Asia are quite distinct from a bird of the Langshan type, and one has but to remember that as recent as a half-century back, Brahmans and Cochins closely approached the type of the Langshan, the *heavy* leg-feathering of the Modern Brahma and Cochin being entirely the result of artificial selection; and, when it is taken into consideration that Fowls can be produced, in a comparatively short space of time, of a distinctly pronounced type, and resembling in no way any of the component parts, and that, if these birds are crossed with alien stock, the progeny will immediately revert to the original type, in scarcely any marked characteristic resembling either parent, though at times there will be some slight characteristic of the original stock present in a modified form (which may be detected on close scrutiny, but not otherwise), it is an almost overwhelming proof of Darwin's "Unity of Species."

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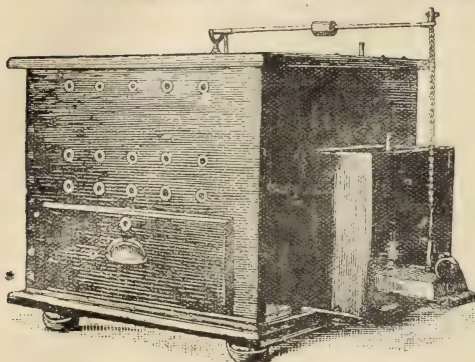
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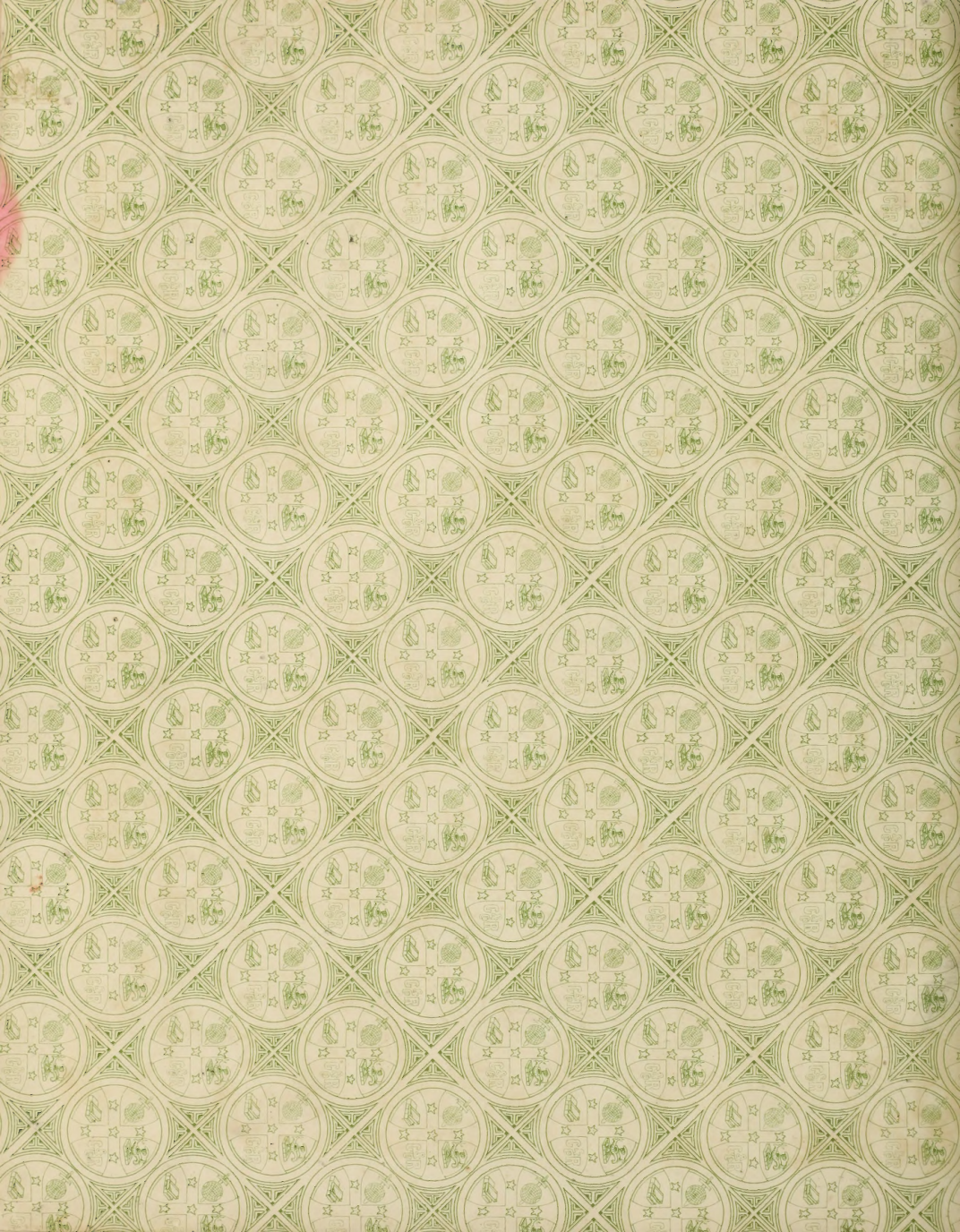
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