

Contagious Diseases.

Drawn the progress of certain disorders, there are given off from the sick body specific organic particles which possess a wonderful power of self-multiplication, and which, if they come into contact with living animals, are apt to develop the same disease from which they originated. Disorders thus propagated are recognised as catching, contagious, or infectious. They include, amongst horses, glanders, strangles, influenza, and typhoid fever; amongst cattle, pleuro-pneumonia, mouth-and-foot disease, rin-derpest, and vaccine pox; amongst dogs, distemper, typhoid fever, and rabies. Although intangible and not usually cognisable by the senses, the specific virus, or *contagium*, as it has been recently termed, possesses a distinct and positive existence. Judging from its behaviour it appears to consist of solid particles, or germs, or cells. That it is not gaseous is evident from the fact that most contagions retain their activity even after passing through the air, or being carried about on the clothes of men, or on other such articles. That it does not consist in a volatile fluid is tolerably apparent from the fact that admixture with water does not always destroy its reproductive power. From the careful philosophical investigations of M. Pasteur it appears now to be tolerably well ascertained that the matter of contagion, whether it came from the ulcerated nostril of a glandered horse, from the teeth of a mad dog, from the body of a plague-stricken cow, or from any other source, consists of minute spores, germs or cells, which, under favourable circumstances, may preserve their vitality for some considerable time outside the body, may attach themselves to living objects, and may be carried uninjured through the air.

The unsuspected movement of such living organisms throughout the atmosphere is not so difficult to understand when we remember that the small seeds of mushrooms, mosses, and other such plants, are often conveyed in this way for considerable distances. M. Pasteur has, moreover, recently shown that the atmosphere, especially in inhabited localities, is always filled with invisible organisms, which, when they fasten on suitable substances, develop and multiply. In this way mould and other lower forms of vegetation spring up; various putrefactive changes are originated; whilst, what is still more to our present purpose, pus is produced in worms from pus germs settling upon them!

When the contagious virus gains access to the living body, a period of quiescence or incubation occurs, which varies in duration with each virus, and even with the same virus under different circumstances. Mouth-and-foot disease, for example, will sometimes show itself two days after the exposure to the contagion; whilst hydrophobia has appeared in animals several months after they have been bitten by a mad dog. But the living germs are not idle during this period of incubation; they grow and multiply. Like other growing organisms, the germs of any contagion require nourishment, which is doubtless extracted from the blood, or living parts with which the vital cells are in contact. Like other organisms, they probably also contaminate by excretions the body on which they feed. This ingenious view is lucidly set forth by Mr. Crookes, F.R.S., in his excellent Report on Disinfectants presented to Her Majesty's Cattle Plague Commissioners. "In the case of the best known ferment—yeast—its cells multiply by feeding upon the sugar in the liquid; alcohol and carbonic acid being their excretions. It is therefore probable that during the multiplication of the virus cells, they in a similar manner impoverish and weaken the blood, by feeding upon some element in it, whilst at the same time they excrete a poison to which the symptoms of the disease may be immediately due." Third Report, p. 187. In this twofold manner—by exhausting the constituents of the blood, and polluting it by excreta—we may rationally explain the occurrence of the febrile symptoms, weakness, and generally disturbed and deteriorated state of system which usually show themselves even before any distinctive symptoms of the particular disorder are noticeable.

So soon as the special symptoms of any contagious disorders are developed, the rapidly-produced germs of the virus are ready again to be given off, and to commence in other healthy bodies their career of destruction. Sometimes they are emitted from several different channels, as in the case of the cattle plague, which has been shown to be propagated by the mucus from the nostrils or mouth, by the discharges from the bowels, and even by the breath and the tears. Sometimes they appear to be confined more especially to one secretion, as in glanders to the discharge from the ulcers in the nostrils; in cow-

pox from the vaccine pustules; in hydrophobia from the mucus about the mouth. In Influenza, catarrhal disorders, and probably also in pleuro-pneumonia, the specific morbid matters appear to be given off chiefly in the breath. In typhoid fever and other such cases, where the digestive organs are mostly implicated, the dejections from the bowels probably contain the active germs in largest amount.

As the more fatal organic poisons, such as strychnia, prussic acid, hemlock, or ergot of rye, differ in their rapidity of effect, their potency, and their *modus operandi*, so likewise do these organized virus or contagions. Thus cattle plague poison, possibly from its greater diffusibility or tenacity of life, is more virulent than the virus of the mouth-and-foot disease, or of influenza; a very small dose suffices to disturb health, it travels uninjured long distances, it grows and multiplies even in the bodies of the healthiest cattle. Some of the contagious virus are so potent and destructive that no victim survives an attack—such are glanders and hydrophobia; others produce a mild and transient disturbance of health, such as vaccine pox, mouth-and-foot disease, and many cases of strangles; many confer an immunity from subsequent attacks, probably by removing from the blood those substances in which the germs grow and multiply. Some of the contagious virus only exert their reproductive powers when they are placed under the skin, or mucous membranes, or get access to the blood itself. The more diffusible and dangerous virus will travel, however, through the air, adhere to *fomites*, and gain access to the body of their victims through the respiratory membrane, or even through the digestive apparatus.—*North British Agriculturist*.

"Hooks."—John Howie, of Forrester's Falls, in the County of Renfrew, makes the following inquiry: "I wish information from you about a disease, or supposed disease, called the Hooks, consisting of a piece of white gristle that grows upon the lower part of the horse's eye, which some people in our neighborhood contend should be cut off, or it will blind them in course of time. I have a two year colt that is affected as above. I took it to an Englishman who is allowed to be the best horse doctor around here; he says it does not need to be cut, and there is no such disease, and it will go away of itself. By inserting information on this matter in the CANADA FARMER, you will oblige the writer and many others in this neighborhood.

Ans.—"Hooks" are an imaginary affection. The *membrana nictitans*, or law, an appendage of the eye that has the power to a great extent of protecting the eye-ball from injury, and also tends to remove any foreign substance that may become lodged in the eye, is often mistaken for an abnormal growth, and is in consequence sometimes rudely removed. In some instances the law becomes enlarged, when, if it causes irritation, the eye should be fomented with tepid water daily, and a mild astringent afterwards applied, as five grains of sulphate of zinc dissolved in one ounce of water.

Poultry Yard.

Standard of Excellence in Exhibition Poultry.

BANTAMS.

GAME BANTAMS.

GENERAL SHAPE AND COLOR.

The same as in the corresponding varieties of Game Fowls.

POINTS IN GAME BANTAMS.

Smallness of size.....	2
Color.....	3
Shape of head and neck.....	3
" body and wings.....	2
" tail.....	2
" thighs, legs, and toes.....	2
Condition.....	2
	15

DISQUALIFICATIONS.

Cocks above 24 oz. or hens above 20 oz.; adult cocks and adult hens not uniform in the pen, birds not matching in the pen.

OURIGHT BANTAMS.

GENERAL SHAPE—COCK.

Comb—Double, square in front, sitting close and straight on the head, the top covered with small points, with a peak behind turning slightly upwards.
Head—Small, round in front, carried well back towards the tail.
Beak—Short, slightly curved.
Eye—Full.

Wattles—Broad, rounded on the lower edge.

Deaf ear—Flat.

Neck—Neat and taper, quite free from hackle feathers.

Breast—Round, full, and carried prominently forward.

Back—Very short, perfectly free from saddle feather.

Wings—Ample, the points carried very low, almost touching the ground.

Tail—Square, similar to the hen, free from sickle or curved feathers, the feathers broadest towards the end.

Tail Coverts—Straight, round at the end and lying close to the sides of the tail.

Thighs—Very short.

Legs—Short, slender and very taper.

Plumage—Close, perfectly hen feathered.

Carriage—Very upright and strutting.

GENERAL SHAPE—HENS.

Very similar to the cock. The comb and wattles much smaller, and the head smaller.

COLD LACED SEBRIGHT BANTAMS.

COLOR.

Head, Face, and Wattles—Rich red.

Deaf ear—White.

Plumage—Rich golden yellow, every feather laced with rich black, that is, having a narrow, even, well-defined rich black go all round the feathers; the two colors distinct, and not shading into each other, the lacing of the same width on the sides as on the ends of the feathers.

Legs—Slaty blue.

SILVER-LACED SEBRIGHT BANTAMS.

COLOR.

Similar to the golden, substituting silvery white for the golden yellow ground color.

POINTS IN SEBRIGHTS.

Plumage most evenly and distinctly laced throughout.....	4
Purity of ground color in silver, and richness and clearness of ground color in golden.....	2
Comb.....	2
Tail.....	1
Smallness.....	2
Symmetry.....	2
Condition and general appearance.....	2
	15

DISQUALIFICATIONS.

Cocks weighing more than 20 oz. and hens more than 18 oz.
Cocks having either hackle, middle, or sickle feathers.
Legs of any color except slaty blue.

BLACK AND WHITE BANTAMS.

GENERAL SHAPE—COCK.

Comb—Double, square in front, close and straight on the head, the top covered with small points, with a peak behind, turning slightly upwards.

Head—Small, round, and carried well back towards the tail.

Beak—Short, slightly curved.

Eye—Prominent.

Deaf ear—Flat and even on the surface.

Wattles—Broad and thin, rounded on the lower edge.

Neck—Very taper, curving well back, so as to bring the back of the head towards the tail, hackle full and long, flowing well over the shoulders.

Breast—Round and carried prominently forward.

Back—Very short, middle feathers long.

Wings—Ample, the points drooping so as nearly to touch the ground, the secondaries slightly expanded.

Tail—Full, expanded, well adorned with long curving sickle feathers, carried well up towards the back of the head.

Thighs—Short.

Legs—Short, clean, and taper.

Carriage—Very upright, proud, and strutting.

GENERAL SHAPE—HENS.

Comb—Same shape as that of a cock, but very much smaller.

Head—Small, round and neat.

Beak—Small.

Eye—Full and quick.

Deaf ear—Flat, and even on the surface.

Wattles—Small.

Neck—Short and taper, carried well back.

Breast—Round and prominent.

Back—Short.

Wings—Ample, points drooping.

Tail—Full, expanded, carried rather upright.

Thighs—Short.

Legs—Short, clean and taper.

Carriage—Upright and strutting.

BLACK BANTAMS.

COLOR.

Comb, Face and Wattles—Rich bright red.

Beak—Dark horn color, or black.

Deaf ear—Pure white.

Plumage—Rich black throughout.

Legs—Black, or very dark leaden blue.

WHITE BANTAMS.

COLOR.

Comb, Face and Wattles—Rich scarlet red.

Beak—White.

Deaf ear—Pure white.

Plumage—Pure white, as free from yellow tinge as possible.

Legs—White, with a slight pink tinge on the back, and beneath the scales.

POINTS IN BLACK OR WHITE BANTAMS.

Purity of white or richness of black.....	2
Smallness.....	2
Symmetry.....	2
Comb.....	1
Deaf ear.....	2
Condition, and general appearance.....	2
	15

DISQUALIFICATIONS.

Cocks more than 20 ounces, or hens more than 18 ounces.
Legs of black bantams not black or dark leaden blue.
Legs of white bantams of any other color except white.