

VETERINARY.

Care and Treatment of the Horse's Foot.

BY E. L. LOBLEIN, V. S.

My observations with the colt during the first year of its life have forced the conclusion on me that care and treatment during that time have much to do with the conformation of the foot when the colt has matured, and faulty conformation of the foot is responsible for so many causes of lameness, both in the foot, in the limb above it, and also in opposite limbs, that it at once becomes apparent to the ordinary observer that an important factor in locomotion is a well-conformed foot.

The colt's foot when left to itself shows peculiar tendencies to grow in different directions according to the way the weight of the body is brought to bear on the part of the foot covering the ground surface. As an example: If two colts are turned loose in a pasture field, and six months later, if the feet have received no attention, it may be found that one colt's feet may be very long at the toe, giving the horn a slant and curve at the heel, which in after-life will surely, when shod, produce sore or tender heels, and, finally, disease of the ala or retrossal processes of the os pedis—a condition that more frequently occurs than is commonly believed, far more frequently than the old and almost worn-out diagnosis of navicular disease, which used to be the invariable diagnosis by exclusion; whenever the veterinarian failed to discover any other cause for lameness, it used to be navicular disease, but it pleases me to note that the fashion is dying out. Numerous other conditions arise from this malformation by the long heel and long toe. Very often the ankles are compelled to bear too much strain, as will be observed when viewed from either a physical or mechanical standpoint, as exists in the condition cited, and we all know how frequently ringbones arise in colts from the same existing condition in the foot, and all can be obviated by the use of an ordinary rasp in the hands of an intelligent caretaker by keeping the toes short and distributing the weight evenly over the foot, while in after-life, with proper shoeing, the foot is likely to grow in the directions and at the angles it has been induced to grow in early life.

In the other colt the opposite condition may be seen, and that is for the toe to become worn and broken off and the heel to grow disproportionately high and steep, which also has its bad effects on the foot in after-life. If the horn grows too perpendicular there becomes an uneven pressure on the os pedis and surrounding tissues, and the natural angles of the phalanges are destroyed, and consequent imperfect articulation ensues. This is a frequent source of lameness, as evidenced by periostitis of bones adjacent to articulations. All this can be obviated by maintaining the proper angles by the use of rasp on ground surface of foot, producing the tendency to grow a normal shaped foot.

When the time comes for our colts to be shod, more care than ever should be exercised. My views are in on way radical or original on this point, as they are largely an endorsement of the views set forth by others who long claim to be authority on this subject. One point I want to emphasize as important, and that is that the shoes be light and never thick at the heels; at least, the dressing of the foot and fittings of the shoe should be such as to allow the frog to come in contact with the ground all the time, as the colt's foot is sure to suffer as soon as the frog is removed from the ground.

One of the most important faculties for us to cultivate is true sight, and by constant application with the use of calipers and rule we will in time attain that proficiency in this one thing that will be of great use and assist us in diagnosing lameness. Most of us could recall the amusing incidents of our errors in discovering the source of lameness. Take, for instance, many road horses; just the slightest bruise on the metacarpal bones will produce periostitis and consequent lameness, and all traceable to an uneven foot, destroying the natural perpendicular or straight line of the limb during locomotion, bringing the leg in the way of the foot, not the foot in the way of the leg, as when one foot is perfectly level and the other uneven it is the leg resting on the uneven foot that is injured, showing that it got in the way of the foot being moved in its natural straight way. Ask for proof. Shoe the foot level, the offence stops, and lameness—if injury is not too severe—soon passes away.

We have rambled on beyond the shoeing of a colt's feet, and come to the time when he goes to work, gets fed strong and driven hard, and there is every tendency to produce congestion of blood vessels of the foot from so many causes. Our great object is to obviate or minimize the several factors that predispose the foot to become congested, and here, again, I say maintain your frog pressure, and when that bears its due share of weight and concussion brought to bear while in motion, either rapid or slow, the other parts will not be compelled to bear an undue portion of weight and concussion. Here, when the frog is not sufficiently developed, the well-adjusted bar-shoe is of inestimable benefit.

I dare say that most of us have noticed that when the grain was taken from a horse and he was turned to pasture the feet lose brittleness and grow tough and strong. This is not due entirely to the moisture obtained from the wet grass and damp ground, but is partially due to the healthy condition of the stomach and absence of inflammation in the feet.

To go into all the causes would take too long, for the subject is an inexhaustible one, but heredity

must not be overlooked. Heredity influences the general conformation, strength, size, and vascularity. The old adage that "like begets like" is very true in this case. So it is not surprising to see the offspring of a sire or dam who has bad feet showing a predisposition to the same condition. Nevertheless, I think it wrong to look on hereditary influences as inevitable. Take the young offspring and employ every means to obviate and overcome the tendency to follow in its parents' footsteps. I think the expression applicable here. The result will be a strong and comparatively healthy foot, and the offspring of that animal will probably be much improved, in comparison to its foreparents, showing that heredity even in this can be successfully combated if proper means are employed.

Of the artificial appliances, we all know many to be beneficial, but there is one of the latest that I deprecate the necessity for using, and that is pads on soles and frog. I have failed to find where they have been used any length of time that they have not produced a dry rot of sole and frog, and in most cases the frog never regains its previous healthy state. Asphalt pavements seem to render this inevitable in some cities. Aside from this, it is doubtful if they are ever of any permanent benefit. The use of hoof ointment, I think, is a dirty humbug. Water properly applied is of more permanent benefit than any other application that I have been lucky enough to meet with.—*Journal of Veterinary Archives.*

GARDEN AND ORCHARD.

The New Fruit Inspection Bill.

After long and careful consideration by fruit-growers, by the Dominion Minister of Agriculture, members of the House of Commons, and the Canadian Senate, an Act to provide for the marking and inspection of packages containing fruit for sale has been passed, and goes into operation on July 1st. In the Act, the expression "closed package" means a box or barrel the contents of which cannot be seen or inspected when closed, and the expression "fruit" does not include wild fruit. It is enacted that: "Every person who, by himself or through the agency of another person, packs fruit in a closed package, intended for sale, shall cause the package to be marked in a plain and indelible manner, before it is taken from the premises where it is packed; (a) with the initials of the Christian names, and the full surname and address of the packer; (b) with the name of the variety or varieties; and (c) with a designation of the grade of the fruit." Provision is made for two brands or markings: "A No. 1 Canadian Fruit" and "No. 1 Canadian Fruit." For the former the fruit must consist of well-grown specimens of one variety, sound, of nearly uniform size, of good color for the variety, of normal shape, and not less than ninety per cent. free from scab, worm holes, bruises and other defects, and properly packed. For "No. 1 Canadian," the fruit must consist of specimens of one variety, sound, of fairly uniform size, and not less than eighty per cent. free from scab, worm holes, bruises and other defects, and properly packed. Persons are prohibited from having in their possession, selling or offering for sale closed packages of fruit with marks representing it to be of the "finest," "best," or "extra good quality," unless such fruit consist of well-grown specimens of one variety, sound, of nearly uniform size, of good color for the variety, of normal shape, and not less than ninety per cent. free from scab, worm holes, bruises and other defects, and properly packed. It is enacted to be fraudulent packing when more than fifteen per cent. of the fruit is substantially smaller in size than, or inferior in grade to, or different in variety from, the faced or shown surface of such package.

The penalty for violating this Act is a fine not exceeding \$1 and not less than 25 cents for each package, or, in default, imprisonment not exceeding one month. When the Inspector detects such packages, he is to brand them "falsely marked," in a plain, indelible manner, and the penalty for altering or obliterating his marks is a \$40 fine. The person on whose behalf the fruit is packed or sold is held to be liable *prima facie*. Any person obstructing an Inspector carrying out the provisions of this Act shall be liable to a penalty not exceeding \$500, and not less than \$25, with costs, and, in default, not exceeding six months, with hard labor. Half the fine goes to the informant and half to the King. The Governor-General is empowered to make regulations for the enforcement of the Act. By the amended General Inspection Act, provision is made authorizing the appointment of Inspectors and deputies, to be paid by salary or fees, for various articles, including apples. According to a third Bill passed, respecting the packing and sale of certain commodities, apples packed in Canada for export must be in well-seasoned barrels, not less than 26½ inches inside measure between the heads, a head diameter of 17 inches and a middle diameter of 18½ inches, representing as nearly as possible 96 quarts. For apples, pears or quinces sold by the barrel, the dimensions must not be less than those specified. For violating this provision there is a penalty of 25 cents per barrel.

In respect to certain other points, it is provided that every box of berries or currants offered for sale, and every berry box manufactured and offered for sale, in Canada, shall be plainly marked on the side of the box, in black letters at least half an inch square, with the word "short," unless it contains when level full as nearly exactly as practicable:

(a) at least four-fifths of a quart, or (b) two-fifths of a quart.

Every basket of fruit offered for sale in Canada, unless stamped on the side plainly in black letters at least three-quarters of an inch deep and wide, with the word "quart" in full, preceded with the minimum number of quarts (omitting fractions) which the basket will hold when level full, shall contain, when level full, one or other of the following quantities: (a) fifteen quarts or more; (b) eleven quarts, and be five and three-quarter inches deep, perpendicularly, inside measurements, as nearly exactly as practicable; (c) six and two-third quarts, and be four and five-eighths inches deep, perpendicularly, inside measurement, as nearly exactly as practicable; or (d) two and two-fifths quarts, as nearly exactly as practicable.

The usefulness of the foregoing measures will depend very largely upon the efficiency of the Inspectors who are appointed to enforce them.

Orchard Meetings a Great Success.

BY G. C. CREELMAN, SUPT. OF FARMERS' INSTITUTES.

As was anticipated, the meetings held in the orchards throughout Ontario are being well attended. No new movement in connection with the Institutes has taken so well, unless it be the poultry demonstrations held at the winter meetings.

IN HALTON.

As has already been reported, the meeting held at Mr. Peart's place, at Burlington, was, notwithstanding the weather, a most successful one. Two hundred people were present, and everyone carried away practical ideas in reference to the best varieties of large and small fruits; the best methods of cultivation; how to prune, graft, and how to pack fruit for market.

AT ST. CATHARINES.

The next week the Lincoln County Farmers' Institute assembled in the orchard of Mr. Thos. Archibald, St. Catharines, and besides general discussion and practical demonstrations of the best methods of caring for an orchard, Prof. Lochhead, of the Ontario Agricultural College, gave an interesting address on "Fungous Diseases of Fruit and Fruit Trees." Mr. Robert Thompson, an officer of the Institute, writes of this meeting:

"As a rule, we can seldom get a quorum at our annual meeting. This year we had ninety in attendance, and they were all wide-awake, too. Prof. Lochhead had questions fired at him from all directions, and he proved to be in every case equal to the occasion. In matters pertaining to insects and fungous diseases we have never seen his equal."

AT AGINCOURT, IN EAST YORK.

The East York Farmers' Institute is, in some respects, ahead of any other Institute in the Province. It is the only Institute that holds regular meetings every two weeks during the winter and spring. Their own local men are appointed to open some timely subject, and then the neighbors take a hand and thresh it out. They have also a Seed Fair each spring, and at this meeting the different varieties of grain are brought in and prizes offered for the cleanest and purest samples. The members of the Institute then arrange to exchange seed, or if they have none to exchange, arrange to buy what they need for the season. And now this progressive Institute has started outdoor meetings, and the one held in Agincourt on June 4th was a model of its kind. Three hundred members were present, and the Secretary assures me that Prof. Hutt was bombarded with questions the entire afternoon, and that all returned home much pleased with the venture and quite determined that they would repeat the experiment again next year.

AT CRAIGHURST, IN SIMCOE COUNTY.

There is probably no better authority on fruit for Simcoe County and the Georgian Bay District than Mr. G. C. Caston, Director of the Experimental Fruit Station at Craighurst, twelve miles north of Barrie. The land is very light, hence can be cultivated immediately after the heaviest rains. He has all the leading varieties of plums, apples and cherries, blackberries, currants and strawberries.

Mr. Caston personally conducted the meeting, and the two hundred farmers present followed from orchard to orchard while the Director pointed out the peculiarity of the different varieties, how to graft, spray and care for an orchard. A spirited discussion was kept up for over two hours, as questions were asked and answered on matters pertaining to fruit.

WORTH MILLIONS TO ONTARIO.

At this Fruit Station two points have been thoroughly demonstrated that might, if heeded, save millions of dollars to the fruit-growers of Ontario. The first is the use of the Tallman Sweet stocks for all hardy varieties of fall and winter apples. Mr. Caston has top-grafted on this hardy stock, Greenings, Northern Spies, Ben Davis and Kings, and has found nearly all of them to make an almost perfect union, and a vigorous, healthy tree. The advantage of this method over growing Spies on their own stocks is: first, they come into bearing earlier, and second, they are not so liable to break down under heavy loads or split apart when covered with snow and ice.

IRRESPONSIBLE AGENTS.

The second point demonstrated is the wisdom of placing an experiment station in the district. The Director has grown most of the varieties that are offered for sale by fruit-tree agents in that district.