Grooming, or the application of the brush to the hairy coat of live stock, has results more farreaching than is often dreamed of by the user of the brush. The skin is made up of layers upon layers of cells, among which are to be found small blood vessels, nerves and little pockets or foldings-in of the skin, known as glands-sweat and grease (sebaceous). One of the effects of grooming is to irritate the small ends of the nerves, which communicate the irritation to the small blood vessels, with the result of an increased blood supply to the skin surface. A result of the increased blood supply to the skin is the increased activity of the glands. The sweat glands get rid of waste material, and thus share the work of the kidneys and bowels. The organs of the body which have to do with the throwing out of waste material are the lungs, the skin, the kidneys, and bowels. All are designed to work together harmoniously for the common good, namely, the health of the animal, and if by any means one of these avenues of escape is stopped up, that work is thrown on the remaining excretory organs, and it is only a short time until the effect of overwork tells on the other organs and ill-health results. The grease glands when working well make the skin oily and mellow and the hair glistens, the result of the increased pouring out of the greasy matter from these sebaceous glands. A somewhat similar result comes from blanketing stock, due to the increased warmth, which dilates the blood vessels and thus causes an increased blood supply. The opposite effect on the skin results from exposure. Cold drives the blood away from the surface of the body and hinders the work of the skin glands, in addition to throwing heavier work on the kidneys. The reason that live stock will go through a winter ungroomed, with long coats of hair, and yet be apparently healthy, is due to the fact that the skin glands of such stock are practically resting from their labors, as owing to lack of exercise the skin is not called upon to work. Given work, however, calling the skin functions into play, and at once it is seen the handicap under which the long-coated, ungroomed animal suffers. In horses, this is recognized by practical men, who clip their charges. The exposed animal needs a long coat of hair, which nature provides, as the space between the outer ends of the hair and the skin is practically a dead-air space. This dead-air space is increased in animals when the "hair stands on end," as it is frequently termed, a condition usually associated with exposure to a greater or less degree. A great growth of hair is not without its disadvantages. It means a correspondingly greater draft on the body forces, or, in other words, expenditure of food. If food is used to grow hair, it cannot be used to build up or grow an animal to any great extent. The use of the brush will tend to remove dead-skin scales, thus preventing the blocking up of the gland entrances, besides stimulating the nerves controlling the blood supply to the skin. We can, therefore, reason quite easily that grooming means improved health to live stock and economy of production to owner.

HORSES.

In the British House of Commons, the War Secretary, Mr. Brodrick, said that the number of horses purchased during the war totalled 446,-088, of which 11,364 came from Canada and 77,-101 from the United States. In addition, about 89,705 horses had been captured in South Africa.

Shire Horse Breeders' Association Annual Meeting.

Meeting.

The Shire Horse Breeders held their annual meeting on Feb. 6th, at Toronto. In the absence of the President, Mr. W. E. Wellington, Mr. J. M. Gardhouse took the chair.

Thirty-one Shires were registered during 1901, a considerable increase over the number of pedigrees received in 1900. The first volume of the Shire Book has been issued. There is a small balance in hand after paying for the book.

The following are the officers elected: President, W. E. Wellington, Toronto; Ist Vice-President, J. M. Gardhouse. Highfield; 2nd Vice-President, W. Hendrie, Hamilton. Directors: W. Wilkie, Toronto; H. N. Crossley, Rosseau; O. Geiger, Hensall; Jas. Dalgety, London; J. Bawden, Exeter; Jas. Henderson, Belton; Jno. Gardhouse, Highfield. Delegates: To Horse Breeders' Association, J. M. Gardhouse and H. N. Crossley; Toronto Industrial, H. N. Crossley and Jno. Gardhouse; Western Fair, H. Wade and Jas. Dalgety: Ottawa, H. Wade. Judges approved for shows: W. Wilkie, Toronto; Jno. Davidson, Ashburn; Geo. Moore, Waterloo; Arthur Johnston, Greenwood; R. P. Stericker, East Orange, N. J.; J. A. Turner, Calgary, Alta; Robt. Graham, Stouffvilles: Jas. Henderson, Belton; Thos. Graham, Claremont; A. McLaren, Aurora, III; P. McGregor, Brucefield; J. T. Gibson, Denfield.

The meeting fell into line with the other Horse Breeders' Associations and agreed that a stallion-owner should have a lien on both the mare served by his@horse and on the foal the produce of the service. The appointment of Mr. W. E. Skinner as Director-General of Live Stock at St. Louis was also favored.

What Grooming Means to Live Stock. Saddle and Carriage Horse Breeders' Association Annual Meeting.

This society held its annual meeting at the Albion Hotel, Toronto, on February 5th. In the absence of President W. B. Fuller, Walter Harland Smith, the Vice-President, took the chair. The treasurer's report showed a small deficit. The corresponding secretary read a practical address, pointing out how the society might benefit horse breeders and owners. Two prizes of \$60 and \$50 were given last year, the first for the champion harness horse at the Canadian Horse Show, the second for the champion saddle horse at the Toronto Industrial. These were donated by Mr. W. H. Smith and Mr. Geo. Pepper, Toronto.

Two hundred dollars were subscribed in the room

horse at the Toronto Industrial. These were donated by Mr. W. H. Smith and Mr. Geo. Pepper, Toronto.

Two hundred dollars were subscribed in the room by four members, to be divided into four champion prizes for heavy harness, roadster, hunter, and saddle horses. The prizes must be won twice to become the property of the winner.

The constitution was revised, and the name of the Association changed to that of the "Harness, Hunter and Saddle Horse Association of Canada." This was done to include roadsters.

Walter Harland Smith was elected President; O. R. Sheppard, Toronto, 1st Vice-President; Thos. Crowe. Toronto, 2nd Vice-President. The directors are: W. C. Brown, Meadowvale; T. H. McCartney, Thamesford; S. B. Fuller, Woodstock; Dr. Andrew Smith, Toronto; E. W. Cox, Geo. Pepper, Toronto; W. Hendrie, Jr., Hamilton; W. T. Merry, Jas. Murray, Toronto; Adam Beck, London. Delegates to Horse Breeders' Association: Messrs. A. Beck and O. B. Sheppard. Messrs. Smith, Sheppard, Beck, Fuller and Merry were appointed a committee to increase the membership. W. H. Smith and W. T. Merry were elected delegates to the Toronto Industrial.

Clydesdale Breeders' Association Annual Meeting.

The largest and most enthusiastic annual meeting in the history of Clydesdale Breeders' Association was held in the Albion Hotel, Toronto, on February 4th, under the chairmanship of the President, Mr. Peter Christie, Manchester, Ont.

The President's address was in a hopeful vein as to the progress of the Clydesdale industry. He referred to the high stand taken at the Pan-American and Chicago Expositions by the horses of Graham Bros. and others, and thought the future as regards prices for good horses was very promising.

The Secretary-Treasurer reported that 562 pedigrees had been recorded during 1901, or 226 more than in the year previous. A great many had been sent to the Northwest, a few to the United States, and a great many sold to go to the central portions of the country. Vol. II. is nearly ready for distribution. The balance on hand is \$887.96. Eighty-eight dollars was awarded as cup prizes at Calgary, Winnipeg, Brandon, and Halifax.

The question of introducing a lien bill in the Ontario Legislature was brought forward, and, after some discussion, the feeling of the meeting was unanimously in favor of a lien on both the mare and foal. A vote of a similar amount of money as in 1900 for cup prizes for stallions was voted, and, in addition, cups for mares.

A discussion on the Association subscribing towards the prize list of the Spring Horse Show brought out the fact that a majority present considered that that show was held too late in the season. Some favored the holding of a show for draft horses as carly as the end of February or the beginning of March, even if a separate show was held, and a motion was passed that the directors be instructed to take the necessary steps at once to hold a spring show at such time as will suit the breeders and farmers of Canada.

The following were elected officers: President, D. McCrae, Guelph: Vice-President, Jas. Dalgety, Lon-

show at such time as will suit the breeders and farmers of Canada.

The following were elected officers: President, D. McCrae. Guelph: Vice-President, Jas. Dalgety, London; Vice-President for Ontario, O. Sorby, Guelph: Quebec, R. Ness, Howick; Manitoba, J. E. Smith. Brandon; Northwest Territories, Jno. A. Turner, Calgary, Alta., and A. Mutch, Lumsden, Assa. Directors; Thos. Graham, Claremont; R. Beith, Bowmanville; P. Christie, Manchester; Wm. Smith, Columbus; J. Vipond, Brooklin; Jno. Bright, Myrtle; R. Miller, Stouffville. Delegates: To Toronto Industrial Exhibition, R. Beith and W. Smith: Western Fair, Alex. Innes (Clinton), J. Henderson (Belton); Ottawa, P. Christie and D. McCrae; Quebec and Sherbrooke, R. Ness and Geo. Stewart, Howick: Horse Breeders' Association, Jas. Dalgety and Thos. Graham.

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The meeting approved of sending a signed memorial to the directors of the St. Louis Exposition, asking for the appointment of Mr. W. E. Skinner as Director-General of Live Stock at the St. Louis Fair. Tht following names of judges at the various shows were approved of: Jas. Henderson, Belton; Alex. McLaren, Aurora, Ill.; R. Beith, Bowmanville; Alex. Galbraith, Janesville, Wis.; Jas. Lowry, Montreal; J. H. Kimball, Montreal; Geo. Moore, Waterloo; Jno. Davidson, Ashburn.

Mr. McCrae referred to the School of Instruction in Live Stock at the O. A. C., Guelph, where the score card and scale of points for Clydesdales and Shires was the same, with which he could not agree. He suggested that a small committee be appointed to draw up a scale of points for Clydesdales, with which the meeting agreed.

After the general meeting, a meeting of directors was held the appropriated to the meeting agreed.

After the general meeting, a meeting of directors was held to consider the advisability of holding a stallion show early in the year.

Canadian Hackney Horse Society.

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This society held its annual meeting at the Albion Hotel, Toronto. on February 3rd. The President, Mr. Robt. Miller. Stouffville, being unavoidably absent, on account of the snow blockade on the railways, the chair was taken by Dr. Andrew Smith.

The Secretary-Treasurer's 10th annual report showed that 46 pedigrees had been registered during 1901, an increase of 14 over the previous year. There were now 350 stallions and mares recorded, or just enough to fill a small volume. It was for the meeting to say whether a reduction of membership fees was advisable. Seventy-five dollars was given in prizes last year. The balance in hand was \$300.04. It stated that Mr. Dryden intended to introduce an Act in the Legislature during the present session to give stallion-owners a lien on either the mare served by their stallions, on the foal, or on both, and wished to ascertain the feeling of the various Horse Breeders' Associations on this point. In Manitoba the lien is on the foal, and this lien overrides all other liens, chattel mortgages and executions. The meeting favored a lien on both the mare and foal.

In response to a letter from the English Hackney Horse Society, the Secretary was instructed to write Mr. Euren, the Secretary, and ask for a grant of medals. It was decided to grant \$50 to the Spring Horse Show and \$50 to the Toronto Industrial Exhibition, to be awarded as prizes in the Hackney classes, as the directors of those shows may think fit. A suggestion that the society write to the Board of the St. Louis Exposition, asking for the appoint

ment of Mr. W. E. Skinner, of Chicago, as Director of Live Stock at St. Louis, was not adopted. The printing of a studbook volume was laid over for another year, and it was decided not to reduce the property of the students of the students.

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The officers for the current year are: President, The officers for the current year are: President, Thos. Graham, Claremont; 1st Vice-President, E. C. Attrill, Goderich. Vice.President for Ontario, Robt. Davies, Toronto; Quebec, Jas. A. Cochrame, Hill-hurst; Manitoba, M. McMillan, Brandon; Alberta, A. M. Rawlinson, Calgary; New Brunswick, J. R. Frink, St. John. Directors: H. N. Crossley, Rosseau; R. Beith, Bowmanville; E. C. H. Tisdale, Beaverton; W. Graham, Claremont; Dr. And. Smith, Robt. Bond, Geo. Pepper, Toronto; Robt. Miller, Stouff-ville. Delegates to shows: Toronto, H. Wade and Geo. Pepper; London, Adam Beck and E. C. Attrill (Goderich); Ottawa, R. Beith, Bowmanville; Montreal Spring Show, R. Ness, Howick; Woodbridge, J. K. Macdonald and Jno. Holderness (Toronto); Horse Breeders' Association, J. K. Macdonald and R. Beith. Secretary-Treasurer, H. Wade.

The following were recommended as judges at shows: Alex. Mair, Indian Neck, Staten Island, N. Y.; Wm. West, Burlington, Vt.; Hy. Fairfax, Aldie, Va.; Alex. Galbraith, Janesville, Wis.

No report was received from the committee appointed to confer with the American Society about amalgamation, so it may be considered to have died a natural death.

Canadian Horse Breeders' Association Annual Meeting.

This Association, which corresponds to the Dominion Cattle Breeders' Association among cattle breeds, is formed of breeders of all classes of horses, with delegates from each breed, all appointed by the several Horse Breeders' Associations, except the two delegates for Standard-breds, who are appointed by the Horse Breeders' Association, as no Standard-bred association now exists. The annual meeting was held in the Albion Hotel, Toronto, January 6th. Dr. Andrew Smith presided.

The Secretary-Treasurer's report showed the balance in hand (which included a balance in hand from 1900 of \$2,905.07) to be \$3,568.10. There were 66 paid-up members last year. Among other expenditures was \$50 towards the expense of the man in charge of the Government car conveying registered stock to the West.

the Government car conveying registered stock to the West.

Messrs. W. E. Wellington and Geo. Pepper were elected to represent the Standard-breds and pacers. A discussion took place on the Lien Act now being drawn up by Mr. Dryden. The meeting was almost unanimous in recommending that the lien be put on both the mare and foal. The President and Secretary and J. A, McGillivray are to wait on the Government and explain the wishes of the Association. It was decided to again offer premiums on stallions, with a slight verbal change in the conditions, which now read that "not less than \$5 of the fee be paid at time of service." Fifty dollars was again voted as a contribution towards the expenses of the Government car.

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The Secretary read a letter from Mr. Stewart Houston. stating that the Toronto Hunt Club would again join the Breeders' Association in holding a show this spring. This led to an animated discussion. Messrs. McCrae and Christie spoke decidedly that the show must be held earlier, or the heavy-horse men would hold a show of their own. The directors will try to accommodate them if the Hunt Club consent to the earlier date. If not, the Breeders will hold a show of their own. The first week in April was suggested as a suitable date this year. Next year it may be held earlier.

The election of officers resulted as follows: President, Dr. Andrew Smith, Toronto: 1st Vice-President, T. Graham, Claremont; Secretary-Treasurer, H. Wade. Delegates: To Toronto Industrial Exhibition, W. Hendrie, Jr., Hamilton, and T. Graham, Claremont; London, Col. R. McEwen, Byron, and O. Sorby, Guelph. Committee for Horse Show: J. M. Gardhouse, W. Hendrie (Jr.), Dr. Smith, O. B. Sheppard, Geo. Pepper, H. N. Crossley, T. Graham, A. Beek, J. Macdonald.

At the directors' meeting a letter was read from the Secretary of the Manitoba Horse Breeders' Association, asking for the co-operation of the Association in getting the Dominion Government to increase the minimum value set on horses imported from the U. S., in order to shut out bronchos; and also to get the Government to provide the Indian Reserves with a better class of sires. The duty on horses, which is 20 per cent. on the cost price, is said to amount to only about \$2 a head on bronchos, and they are flooding the country. Messrs. McCrae and Beith were appointed to interview the Government on amount to only about \$2 a head on bronchos, and they are flooding the country. Mesrs. McCrae and Beith were appointed to interview the Government on the matter. The question of date of the Horse Show will be decided this week.

THE ASSOCIATION MUST EDUCATE THE BREEDER.

THE ASSOCIATION MUST EDUCATE THE BREEDER.

At the dinner given by the Association, on Thursday evening, Hon. Jno. Dryden gave a thoroughly practical address. After expressing his sympathy with the breeders, he predicted a bright future for horses. What is most needed is for farmers to have a definite idea and purpose in view for breeding. That is the road to success. They must be educated. It is not the Government's duty to teach; that belongs to the Association. It is the medium for using the money furnished by the Government to the best of advantage. If he had any criticism to urge against the Association, it was that it does not impress itself enough on the people of the country. He did not believe in spoon-feeding by the Government. The Spring Horse Show, though it has become a somewhat fashionable event, is still an educational factor and is a provincial institution. He urged the directors to give the people of the country the information about breeding for which they are thirsting. So keen is this that at the judging class at the O. A. C. they were unable to acconimodate all who wished to attend.

Canadians can breed good horses, if only farmers know what to breed and how. There would never be a time when horses would not be required.

Col. Leys was not opposed to the grant by the Legislature of \$2,000 to the Horse Breeders' Association for the Spring Show, but thought it ought to be supplemented by \$1,000 to the Toronto Industrial. \$1,000 to London, and the same to Ottawa shows.

Mr. Alex. Innes said that nothing would ruin a farmer quicker than breeding poor horses, or improve his condition quicker than breeding good horses. He would like the Minister of Agriculture to keep specimens of good horses and poor horses at the O. A. C. for object lessons to the students.

W. Hendrie, Jr., ursed farmers not to breed army horses, as they did not bay at the prices paid. There were plenty of theisfits even from good stock. He advancated the holdmen of horse fairs in county districts, as is now done at Orangeville

Don't fie a horse too low down or too lengjust so he can have the use of his head in lying