

sulphuric acid, arsenic, corrosive sublimate, croton oil, etc., unless in small quantities and carefully applied, and given proper after-attention, will have this action. Liquid blisters consist of irritating substances, as biniodide of mercury, cantharides, bichloride of mercury, iodide of potassium, etc., mixed with alcohol or water. Two drams of cantharides added to four ounces of alcohol, or the same proportion of biniodide of mercury and alcohol, makes a prompt and effective blister. A mixture of two drams each of biniodide of mercury and iodide of potassium, in eight ounces of alcohol or water, makes a good absorbent blister. This mixture does not blister so readily as the first named, but its absorbent action is more marked. A mixture of equal parts of oil of turpentine, raw linseed oil and liquor ammonia makes a satisfactory blistering liniment, especially adapted for producing superficial irritation in cases of sore throat, or other cases where prompt superficial counter-irritation is required. Paste blisters or blistering ointments are prepared by mixing irritating drugs with lard, lanoline or vaseline. These are made in different strengths, as 1 part of the drug to 4 to 10 parts of lard, etc., according to the severity of the action required. For the ordinary purposes of blistering, such as treating cases of spavin, ringbone, splint, navicular disease, etc., a paste made of 2 drams of cantharides, or biniodide of mercury, mixed with one ounce lard or vaseline, is commonly used. Many practitioners prefer a mixture of cantharides and biniodide of mercury, hence mix 1 dram of each with 1 ounce of lard, etc. This, of course, is 1 to 4, which is considered strong; but, of course, the mixture may be made of any desired strength. When using liquid blisters, a little is applied, with smart friction, once daily, until the desired degree of irritation or blistering is produced, after which sweet oil is applied daily until the scale caused by the blister has fallen off, when, if necessary, the blister may be again applied, etc. This method of counter-irritation is often followed when more or less constant irritation is desired, as where an effort is being made to reduce a chronic enlargement. When paste blisters are used, the mode of application is different. In these cases there is always more or less of the ointment left on the surface, and there is danger of the patient biting or licking the part, and thereby blistering the lips, tongue, etc., and it is wise to prevent this. The hair should be clipped off the parts to be blistered, and the patient tied so that he cannot reach them with his mouth. The blister is then well rubbed in. In 24 hours the parts are again well rubbed with the blister, and in 24 hours longer sweet oil is applied. The patient's head is now let down, and it is good practice to turn him loose in a box stall, and the parts should be oiled every day until the scale comes off, when, if necessary, the parts may be blistered again; and, if further blistering be advisable, at least four weeks should elapse between the applications, as, even where these ingredients are used, if they be applied frequently at too close intervals, there may be danger of destroying the hair roots; but, if applied as above, and the directions carried out with reasonable attention, there is no danger of such results. It must be understood that the results of a blister depend to a great extent upon the manner of its application. In order that satisfactory results may be obtained, the blister should be applied with smart friction. The mere placing of the blister on the surface of the skin will not give as good results as when it is well rubbed into the tissues. The application of a bandage to a surface to which a blister has been applied intensifies its action, as it prevents evaporation; but in cases where a strong blister has been used; this may cause too severe action. Where very severe counter-irritation is necessary, such as is sometimes the case in spavins, ringbones, etc., the skin of the part is often fired in points or lines with an iron at a white heat, before the blister is applied. This, of course, leaves a permanent blemish, as the hair will not grow on the parts that have been fired. In such cases a cure is said to have been effected when the lameness disappears, even though a few small spots devoid of hair remain.

Poultices consist in the application of soft, moist material to a part for the purpose of softening, soothing and moistening it, thereby relieving the pain of superficial irritation and pain, or of softening and removing scabs, foreign substances, etc., that may be present, and interfere with the processes of nature in effecting a cure. There is practically no special virtue in any particular material used for a poultice, the idea being to apply some nominating substance that will retain moisture or heat, or both. The ordinary poultice consists of linseed meal, boiled turnips or bran. The first named is probably the best, as it retains heat longer, and, on account of its oil, nature, does not become dry, even after losing its heat. There are preparations on the market, such as antiphlogistine, thermafuge, etc., that, on account of their faculty of retaining moisture, are also the antiseptic ingredients they contain, are very serviceable for poultices, and would be used much more generally than they are, except for their cost. When poultices are applied for the sole purposes of supplying heat, great attention

is necessary, as they so readily lose their heat, but still remain moist, and cold moisture is undesirable; the reaction may be harmful, hence care must be taken either to keep warm water applied, or change the poultice frequently. When this attention is not given, the application of dry heat, such as batton or wool heated in the oven, gives better results.

Horse-breeding in Manitoba.

Address by Andrew Graham, President of the Manitoba Horse-breeders' Association for 1910, at the Annual Meeting at Brandon.

Since our earliest statistics, in 1871, the horse population has increased steadily. That year, in Canada, the total number of horses was 836,743, and in 1910 that number was almost trebled, the figures being 2,213,199. In 1908, the horse population was 1,318,506 in the five Eastern Provinces, while in 1910, for the same Provinces, it was 1,341,065, a decrease in the last two years of 39,441.

In 1908, the horse population in the three Prairie Provinces was as follows:

Manitoba	230,926
Saskatchewan	259,811
Alberta	246,922

In 1910 these totals were:

Manitoba	244,987
An increase in two years of	14,061
Saskatchewan	332,922
A two-years' increase of	73,111
Alberta	294,225
An increase of	47,303

Making a total increase in the three Provinces of 134,475.

After deducting the decrease for the Eastern division, of 39,441, we have a total increase for the Dominion of 95,034. Statistics for British Columbia are not available, but would make little difference in the proportion of the total.



"Still Comin'."

Old Dobbin—"Ho! Ho! Where's the coming 'Horseless Age' I used to hear so much about when I was a colt?"

Saskatchewan has the largest increase of any of the Provinces, being closely followed by Alberta; this, notwithstanding the fact that the great horse ranches, especially in Alberta, have been forced to give way in order to make room for the incoming settler.

Taking the present population of the Dominion at 8,000,000, and the horse population at 2,213,199, we have the proportion of three horses to ten persons; but, with an increase per annum of 250,000 people, and an increase in the horse population of 47,517, being in the proportion of two to ten, as against the standing proportion of three to ten. This shows the increase in the number of horses has not nearly kept pace with our population, and accounts in part for the steady increase in demand at ever advancing prices.

It is some years since we reached the days of the horseless street car. Now we have the horseless carriage and the horseless plow, and the end is not yet. Still, the horse has his place.

Some of us will remember the consternation in the ranks of labor caused by the introduction of modern labor-saving machinery, but this only made development more rapid, and labor flourished as never before. In the same way, steam and gasoline as farm-motor power are making possible the more rapid subjection of our wild lands for productive purposes, and are increasing, rather than decreasing, the demand for horses, and this will be the case for many years to come.

What is very gratifying to be able to note a substantial increase in the number of horses in this Province, it is still more gratifying to know that the quality of our horses is better year by year. Manitoba has passed

the experimental stage in this matter of horse-breeding. Abundant evidence of this is forthcoming in the wonderful improvement in both the quality and the number of horses seen at our local shows, and also in the prizes won by Canadian-bred stuff at Brandon, Winnipeg and other leading shows. This fact should greatly encourage every horse-breeder to improve his stock as rapidly as his circumstances will permit. Greater care must be taken in the selecting of the stallion. Far too many inferior horses are standing for service throughout the Province, and it is surprising how many men there are who consider themselves up-to-date farmers, that will use a cheap horse, rather than pay an extra \$5 or \$6 for the service of a good horse, the get of which would be worth anywhere from \$25 to \$100 more money when ready for the market. This reluctance on the part of the owners of mares to pay good-living service fees for the use of a good horse, is one of the greatest hindrances to the improvement of our horses, and must be figured on by stallion men when purchasing their horses. Owing to this fact, it is safe to say that not a single horse that has proved himself to be a really good stock horse in the Old Land finds his way to this country, simply because his earning capacity is two or three times greater on the other side of the water than it would be in Canada. Old Baron's Pride's terms are \$50 and \$75, when the mare proves in foal, and it is said that he could get double what he can do on these terms. There are quite a number that stand at \$50 at service, and \$50 more when mare proves in foal; others, \$25 and \$25; still others at \$15 and \$15; some at \$10 and \$10, the fee being fixed by the quality and breeding of the individual horse and his reputation as a sire. I am of the opinion that we will never get the best results in horse-breeding until we adopt some such plan or scheme as the Scottish hiring system. Many are better able to describe this system than I am, but, as I understand it, the farmers of a community or district get together and organize an association for the purpose of hiring a stallion for the use of its members. Some years ago, nearly all the hiring was done at the Glasgow Spring Stallion Show. This show is held in February of each year for the purpose of giving the farmers' organizations a chance to come together and select horses to their liking for their several districts. Of late years this system has become so popular, and the rivalry so keen between the different districts, that a large number of the best horses are hired before the date of the Glasgow Stallion Show. At the present time, about 20 of the most noted Clydesdale sires are hired for the season of 1912. This is accomplished by the association sending three or four of their best men to some of the leading studs of the country to make their selection. It strikes me that this work might be taken up to advantage by our agricultural societies. Each society could be divided into two or more districts, each large enough to make work for a good horse; the work of dividing the territory and calling the first meeting for organization being all that would be expected of the agricultural society, after which it would be up to the district to push the scheme.

I have a great deal of faith in the syndicate-purchase system. This system has fallen into disrepute just because it has been pushed wrong-end foremost. The general method has been to drop down on a community with two men and a horse. First see a couple of the most influential men in the district, give them a share or two each for their influence, put a price on the horse about three times its value, and the sale would likely go through. If the price was about his actual worth, he would be examined very critically, and likely turned down. After the notes were all signed, the horse dealer and whiskey all gone, the horse is pulled out for his first real inspection. Well—the same chaps could hardly repeat the trick on that bunch. A better way is for a number of farmers residing within a district to get together, talk over the horse question, decide on the class of horse they want, and the price they are willing to pay, then send two or more of their best men to a reputable breeder or dealer, and, having found what they want to buy at the lowest spot-cash price, they will likely have more horse at less than half the money that would slip away under the other system.

The introduction of the Scottish hiring system