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when they discovered that in a trail she had trotted four miles in less than 11 minutes. It is also recorded that when 23 years old she trotted 9 miles in 28½ minutes. A grandson of Phenomena appears in the Hackney Society's Studbook, under the name of Jacob's Phenomenon 578. The Hackney, by careful breeding, has been improved in size, quality and height of action, though not in speed, and is no longer used as a saddler, but is the heavy-harness horse "par excellence" of the present day.

CHARACTERISTICS.

The typical Hackney is a blocky horse, of good quality, very stylish and attractive, whether standing or in motion. He should be from 15 to 16 hands high, and weigh, say, 1,000 to 1,250 lbs. His head rather small and bony, with fine ears, broad forehead, prominent but mild eyes; lips firm, and mouth rather small; neck of medium length, muscular, not too thick at throat, and well carried; withers rather high, but not so fine and sharp as the Thoroughbred; back rather short and straight, and loins broad and strong; croup long and slightly drooping, ribs long and well sprung, deep through the girth, and breast muscles wide and prominent; shoulder oblique and long; forearm long and strong; knee large and straight; cannon broad, flat and clean; pasterns rather long and oblique; feet rather large, round, and of good quality, and he must stand straight; hunch and gaskin strong and well muscled; hock large, clean and angular; hind cannon and pastern same as fore; hind feet rather long and narrower than fore, and he stands with toes turned slightly outwards. In color he may be bay, brown, chestnut, black, roan, gray, with reasonable modifications, considerable white markings not objectionable, but in all harness horses an off color is undesirable. The action of the Hackney is the chief characteristic, but the present-day, high-class Hackney must have quality as well as action. The day has past when everything else can be sacrificed for action. A Hackney with the desirable action but lack of quality, is probably more thought of than one with quality and absence of action; and while, to a certain extent, we will sacrifice quality for action, we look for and demand both to a well-marked extent. He must both walk and trot well. His shoulder, elbow, knee and pastern action in the fore limbs, and his hip, stifle, hock and pastern action in the hind limbs, must be free, easy, and extensive (we might say intensive), knee and hock action must be high, pasterns must be well flexed, showing the soles of the feet plainly; shoulder thrown well forward, giving considerable extension to the tread, with style, grace and speed, the fore feet brought high up towards the elbow; he must neither paddle nor roll with fore feet, nor allow them to tarry in the air, but fetch them up and forward in a straight line with grace, promptness and style; hind feet must be lifted promptly and high, with good hock flexion, not with sprawling action, nor yet going close enough with the feet to interfere, but being brought forward in a straight line with a long stride and planted firmly and lightly. He must show this stylish, high and attractive action (we may say flash action) whether jogging or going fast, and the faster he can go the better, so long as he maintains the quality of action.

WHIP.

STOCK

Bang Method Successful in New York State.

In the fall of 1900, by tests with tuberculin, more than half the animals in the dairy herd of the New York Agricultural Experiment Station at Geneva were found to be tuberculous—a discovery at once surprising and disheartening. Many of the affected animals were in excellent physical condition, so far as all outward appearances were concerned. They were animals of excellent breeding, and they were needed to carry on experimental work; so it was decided not to slaughter them outright, but to adopt the Bang method and to attempt the restoration of a sound herd, using the pasteurized milk from the reacting animals as needed in the dairy, and benefiting by their good breeding in raising calves from them.

This method involved the separation of the herd into sound and tuberculous sections by the tuberculin test, isolation of the reacting animals,

disinfection of the stables, keeping the two sections in separate quarters under the care of different attendants, removal of calves from reacting animals soon after birth, feeding them on milk from the healthy animals, or on milk from the other herd, pasteurized to destroy the tuberculosis germs, and regular testing of the sound herd to detect and remove any new cases that might occur.

Many obstacles were encountered that interfered with the rapid renewal of the herd. Burning of the barns destroyed some stock, lack of room led to lessening the number of cows, contagious abortion preventing the raising of any calves one year, and some of the cows produced only bull calves. Notwithstanding these mishaps, four years from the application of the method saw the healthy herd again thirty in number. In this time 25 animals had been replaced, eleven calves coming from the thirteen healthy cows, and fourteen calves from the seventeen diseased animals.

This work was carried out in the face of as many natural difficulties as can ordinarily be expected in an average dairy. It is accordingly believed that, with good care, the rebuilding of a similar herd can be regularly accomplished in from three to five years.

The experiment proves the Bang method a success in New York State, as elsewhere, and points out to the owner of a herd a feasible method of utilizing the good breeding of valuable animals that become tuberculous.

More Sheep Should be Kept on Western Farms.

The magnificent display of sheep of all the principal breeds at the leading exhibitions in Canada, amply demonstrates that we have a country admirably adapted to the production of this class of stock in the highest degree of perfection, and that we have practical shepherds, not a few who are well qualified by training and experience to bring them out in the pink of condition and in robust health and vigor. The splendid record made by our flockmasters in winning honors at the great international exhibitions in which they have competed, at Chicago and elsewhere, with Canadian-bred-and-fitted sheep in their own hands, and those of others to whom they had sold, furnished abundant evidence of the high-class character of our sheep, the undoubted skill of our shepherds, and the suitability of our climate, our soil, and our stock foods, for the growth and development of sheep and the production of mutton and wool of the best quality.

In view of these facts, it is unaccountable that so few sheep, comparatively, are found on Canadian farms, that by a very large proportion of our farmers they are entirely neglected, and that the aggregate number of sheep in the Dominion has been steadily decreasing for the last fifteen years. We are confident this fact is not due to any general disability affecting the industry. We believe it is absolutely safe to say that in no other country are sheep liable to so few diseases or disadvantages of any kind. The climate is as near an ideal one for the successful raising of this class of stock as can be found anywhere in the world. All the principal mutton breeds do well with us. There is no class of farm stock the raising and care of which requires so little labor or expense as this inoffensive and unpretentious money-maker. Sheep will live in summer largely upon pickings in the lanes and by-places of the farm, and in the fall prove most useful and make good gains on the stubble, and will eat many of the weeds that infest the pastures, thus helping to clean the farm and keep it clean. No stock is so little affected by protracted drouths; they prefer a short nibble, and thrive better in a dry season than in a wet one when feed is overfluous. The fleece of wool—a volunteer crop, which never fails—which no other farm stock yields, and which is perennial during the life of the animal, amply pays for its winter keep, even when liberally fed, and anywhere from fifty to a hundred per cent. of an annual increase from the ewes may be reasonably expected, and with a little care and good management, may be realized. We doubt if any other investment in farming will pay as liberal dividends as those semi-annually declared by a well-bred and well-cared-for flock of sheep. There is generally a good steady demand for mutton sheep or lambs in the great markets at all seasons of the year, at good paying prices, considering the cost of production, while the demand for breeding stock for improving and replenishing the flocks on the

farms and on the range territories of Canada and the United States is such as to make it decidedly profitable to cater to that trade, and Canadian farmers are peculiarly well situated for taking advantage of the increasing trade in this line which is bound to come our way. Many United States flockmasters look to Canada for rams for the improvement of their flocks, knowing from experience that sheep bred, and raised in our climatic conditions possess the requisite stamina and quality to improve the stock they are brought into contact with, and they will continue to come here for fresh blood. The Americans are fast becoming a mutton-eating people, and it is hard to understand why the same cannot be said of our own people, for there is certainly no more wholesome meat that can be placed upon our tables. Lamb is rapidly growing in favor as an article of diet, and brings highly-remunerative prices, considering the cost of production, and gives quick returns to the producer; and we may look for a steady increase in this trade, in sympathy with the prevailing preference for young meat in all lines.

While it is true that the quality of our best breeding flocks has been well maintained, thanks to the skill and pluck of the breeders of pure-bred flocks, who have nobly held on through times of depression without adventitious aid from outside sources, while kindred industries have been boomed by Government agencies and aided by special favors at the public expense, yet it is also true, as we have intimated, that sheep are neglected by a very large proportion of our farmers, we believe to their own direct loss. There are few farms in the Dominion on which a small flock could not profitably be maintained. The expense of starting a flock on a small scale is very moderate and may soon be repaid by the sale of surplus stock, while, by retaining the best of the young females, and purchasing at intervals of two years a new ram, which may often be sold at the end of his term of service for nearly if not quite the original cost, a flock can, in a very few years, be built up and maintained, to the profit and satisfaction of the owner. We know many farmers who find their little flock of good grade sheep the most profitable asset on their farms; and, from our extended experience and observation, we feel safe in counselling the keeping of more sheep by the farmers of Canada, believing, as we do, that this is a field in which our people can continue to excel. The best season in all the year to buy sheep for a foundation stock or to replenish, is in the early autumn, when the lambs have been weaned, and the ewes are generally in good condition. If deferred to a later period, breeders will, as a rule, have sold what they intended to dispose of, and have reduced their flock to the number they intend to keep through the winter, and will then only sell for tempting prices, if they consent to sell at all. Those who buy early generally get the best selections.

FARM

How to get Wheat into the King Row.

EDITOR FARMER'S ADVOCATE:

To get into the "king row" with wheat, there are four points that should be closely adhered to. First, when working you summer fallow make a note of the low places in the field where water is likely to lodge in the spring. Then sometime before winter sets in make furrows with the plow, following the natural water courses, that will carry off most of the water in the spring. If the operation is gone over again after seeding, there will not be so many late green patches on the field, which is one cause of much wheat going low grade. Second, the seed while placed second in this category is first in importance. But I scarcely need mention this as the point is generally conceded. Third, is harvesting the crop. That embraces two operations—first, the proper stage to cut the wheat; second, the proper mode of shocking. While it is important that the crop should be cut at the proper stage of ripeness, slovenly shocking is responsible for much of the low grade wheat that reaches the market. If some care has been taken to drain off the surplus water, and pains taken with the seed your crop should ripen fairly even. But if some of the wheat is dead ripe and other portions quite green I'm afraid it would be about

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