

stallions were sold in England for exportation to the United States, the most of which went west of the Ohio river. The Hackney is not a rival of the trotter, but it is a great mistake to suppose that he has no pace. A thoroughbred Hackney will easily cover twelve or fourteen miles an hour, carrying a heavy man on his back, or hitched to a load that would "tucker" most trotters. The breeders of horses in Vermont have of late years devoted themselves to the trotter, and, while some have bred heavy draught horses, until recently no attempt has been made to raise the Hackneys, a breed that always commands the highest price in market. The town of Randolph and the state at large are to be congratulated that men like Dr. Webb and Colonel Kimball, who have a desire to use their wealth in furthering the best interest of the farmers and horse breeders, are found within their borders.

Watchman.

celebrated prize winners having been got by him. Among these we may mention Astonishment 888, Bay Leaf 1707, Copenhagen 1461, Daneport 3535, Ganymede 2076, General Gordon 2084, General Havelock 3623 Lady Keyingham 2925, Lord Melton 3109, Matchless of Londesbro' 1517, Princess Dagmar 4590, Saxon 2674, and The Masher 13.

Our illustration is sketched from a photograph taken on the occasion of the Elsenham sale.

## The Grazier and Breeder.

### PASTURING ANIMALS

There is no other part of farm management that is so often made unprofitable by neglect as pasturing, and there is no other that may be made more profitable by its skilful culture.

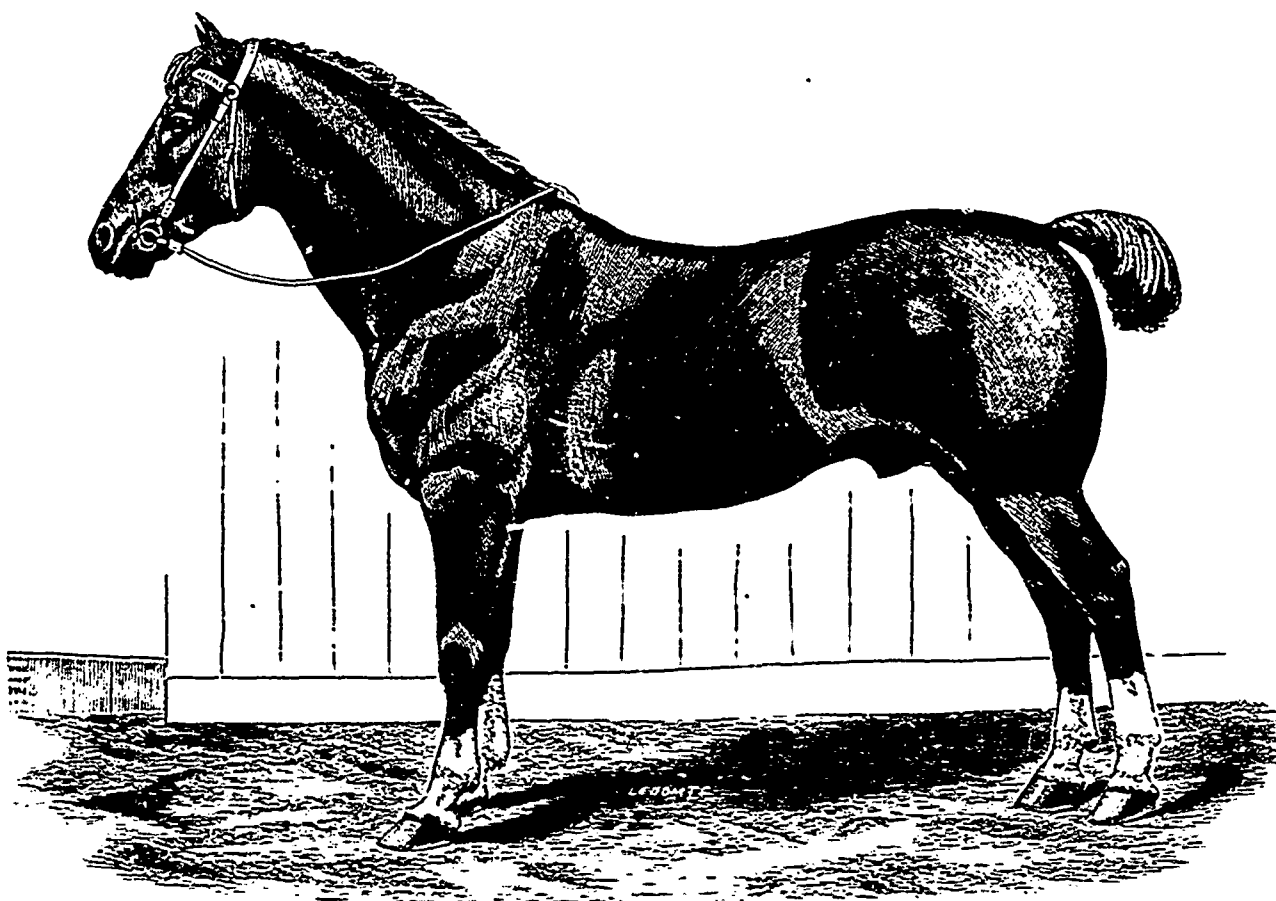
tentive of its water as to greatly overcome the tendency to evaporation by the excessive heats of the summer. Thus we find such localities as that known as the blue-grass region of Kentucky, in which the soil is so well suited to the growth of grass, and so retentive of the needed moisture, as to produce the finest pasture and maintain it in the best condition for a century. There are found fields that have never been broken by the plough, in which the native grass at first took complete possession, and has kept it and promises to keep it in perennial verdure. This, however, is one of the rare instances on this continent of such favorable conditions of soil and climate, for elsewhere the greatest skill hardly prevails against the natural obstacles to the maintenance of permanent pasturage.

But it is not at all difficult to make a profitable pasture for a short term of years by a due preparation of the soil, and after care. This preparation con-

jury by neglect, is to encourage the loss of the grass and the substitution of weeds for it. And in addition, it must be so used as to give all needed opportunities for the grass to make a sufficient growth before it is eaten down at the beginning of the feeding season. This is an important consideration at this time. (1)

Ploughing for pasture should be done in the most thorough manner. The land must be all broken up and made fine and mellow. If any hard spots are left, these will soon be bare of grass, and weeds will take its place. It should also be made evenly fertile, for this same reason. And the seed must be evenly sown, and in liberal quantity, for this same perfect covering of the surface with a thick and strong growth of grass. If the seed is timothy and clover, which will make a five or six years' pasture, if the perennial clover is used, not less than twenty pounds of each to the acre will be needed. And if mixed grasses are used, the quantity of seed must be 40 or 50 pounds per acre. A good selection for this seeding is ten pounds of timothy and six pounds of perennial rye-grass, yellow oat, meadow fescue, foxtail, tall fescue, and red-top grasses. These will afford a continuous succession of pasture through the season.

But it is one thing to make a pasture and quite another to keep it as it should be. The use of a thing is very often of greater importance than the mere making of it, as regards its value; and this is especially true of a pasture, which is so easily ruined by bad management; and this is a timely consideration now when the pastures are about to be occupied. The growth of the herbage is yet weak and in its first stage, when it needs time to gain strength for its full luxuriance. If it is fed down now, the weak roots cannot recover from the shock and will perish, and this is the most frequent cause of the disappearance of the grass, which occasions surprise to the farmer who cannot understand why this should be so. It is like the cutting of weeds or bush, by which the leaves being prevented from growing, the plant cannot be nourished and quickly dies, for the leaves, and not the roots, are the principal sources of the nutriment of all plants, which derive twenty times as much of their substance from the atmosphere as from the soil. It is in vain to feed the roots by the most liberal manuring or fertilising, if the supply of atmospheric food is cut off by depriving the plants of their leaves. And yet this most obvious principle of plant growth is rarely ever thought of in regard to pastures. This early feeding of the herbage too is often followed by too heavily stocking the land, and the continued damage is still more destructive. The final ruin then comes more quickly, for the starving of the grass is continuous. This is the common fate of the pasture, and farmers cannot understand why this should happen, when by a little thought of the very nature of plant growth it should be as clear as anything can be. Another error or neglect is the gathering of the droppings of the cattle on the grass. This is so much permitted that some good pastures are largely spoiled by the covering of the grass to the extent of one fourth or more of the surface, counting the actual spaces covered, and the borders of each that are fouled by the spread of the manure by the rains. The rank growth that rises around these spots that disfigure the fields, is not eaten,



THE CELEBRATED HACKNEY SIRE, DANEGELT 174.

RECENTLY PURCHASED BY MR. WALTER GILBEY, FOR 5,000 GUINEAS.

### THE CELEBRATED HACKNEY SIRE, DANEGELT 174

With the exception of his sire, Denmark 177, Danegelt probably ranks as the most successful Hackney sire of modern times, and the fact that he has been recently purchased by Mr. Walter Gilbey for the phenomenal sum of 5,000 guineas, in order to prevent his going to the United States, has led us to give his portrait in the present number of the Illustrated Journal of Agriculture. He is a grand example of the cross between the Yorkshire and Norfolk strains of blood which has been so strongly advocated by Mr. Burdett Coutts. Danegelt is a fine-colored chestnut, foaled in 1879, by Denmark (Bourda's 177) out of Young Nellie 257. During the years 1883 to 1886 he was frequently exhibited, but at the larger shows only took as a rule third or fourth prizes. It is as a sire that he has become famous, many

It is one of the most convenient methods of gathering and using the product of the soil, and the animals do better on this natural feeding than on any artificial substitute for it. But unless the pasture is in the best possible condition, the profit of it is greatly reduced or wholly lost, and the use of the land becomes wasteful.

Pastures may be permanent or temporary. The permanent pasture is, however, not so well suited to our climate as in countries where the summer is cooler and the rainfall is greater. In the summer, for nothing more conduces to the growth of grass as moisture and coolness. The best soil cannot produce grass without requisite supply of moisture, and if this be provided either naturally or artificially by irrigation, the heat of the climate becomes a secondary consideration. But it is also true that the condition of the land may have much to do with this supply of indispensable moisture, for it may be made so much more re-

sist of thorough ploughing, fertilising, and proper selection of the varieties of grass. Draining is indispensable if the soil is not naturally drained, for in such cases the land may very easily be too dry for the growth of grass at one time, and at another time may be too wet and sodden; and drainage often tends to render the soil moist by conserving the water and preventing too rapid evaporation. Moreover, a wet pasture is always injured most seriously by the trampling of animals, and the poaching of the ground.

When by the skill of the farmer the pasture has been made, its preservation is not to be neglected. It will not do to leave it to its chances. It must be fed quite as much as the animals that feed upon it. It must be repaired continually by fresh seed (1) and fertilisers, as time and season make inroads upon it. To leave any pasture without due care to avoid certain in-

(1) We never succeeded by sowing fresh seed on an old pasture. Ed.

(1) Good.

Ed.