

tempt horse breeding work their mares too hard. If the land of the farm is heavy, and almost all arable, with a comparative small grass area, breeding is as often a failure as not. The work is hard, and then if the mares are kept almost idle for a time, the keep is so costly on such holdings that the profits or advantages of breeding dwindle. While, therefore, it is doubtful if arable farmers can breed agricultural horses to a profit, and not at all clear that ordinary farmers can rear hunters to advantage, it is evident that over the country generally more horses could and should be bred. As to hunters, farmers having a good knowledge of them, and a liking for that kind of stock, will find good prices in store for their enterprise, and, though animals of this character are not so early marketable as some others, yet, when "broken" and promising, they command very handsome prices—often from 300 guineas onwards. Though farmers in exceptionally favorable circumstances will and should continue to breed and rear hunters, it is manifest that that work is pre-eminently for the noblemen and gentlemen of independent means. It is to be hoped, therefore, that the latter influential classes will go on even more extensively and heartily than heretofore with the breeding of first-class horses, and so sustain the reputation of England. No fear of foreign competition if the English nobility and gentry only put their shoulders firmly to the wheel.

The obstacles to agricultural horse breeding are not so formidable, yet farmers situated as those described above frequently find it preferable to purchase than to breed. Thousands of farmers, however, have no such obstructions to contend with, and from these we may expect the horse supply increased. For some years the supply has not been equal to the demand, and curiously enough, many farmers having during the last four or five years betaken themselves to breeding, there is no appearance of any falling off, either in the demand or the price. The ever-increasing traffic through town and country necessitates more horse power, and the crushing work in towns and cities destroys a good deal of horse flesh. One thing is certain, the prices—high for years—are rather advancing than otherwise. They are positively too high—quite a fourth above what they should be. Though they were 25 per cent. lower, horse breeding would still pay on farms adapted for it, and it would be well if circumstances called only for breeding on this description of holdings just now in order to get the exorbitant rates somewhat reduced. It is advisable to stretch a point in the interpretation of the term "holding, adapted for horse breeding," because it would pay farmers to rear rather than purchase at current prices as nearly as can be their own horse supply, though hereto the farm had not been regarded as specially favorable for that purpose. Besides, the mere question of pounds, shillings and pence, the fact of horses invariably proving best on the holdings on which they have been bred or reared, or both, is a powerful incentive to home breeding, and is daily becoming more so. It may be curious, but it is true, that a farm horse is healthier, harder, and more servicable on the farm on which he has been reared than on any other.

The horse market is not marked for the honesty practiced therein—in fact, its notoriety tends rather a different way. The best place to buy when one must have horses ready for harness is at dispensing sales; but here the prices of late have got perfectly alarming. At several large sales in the border within the last few weeks the whole stocking of horses averaged over £80 a head. Mr. Scott, of Moss Tower, Roxburghshire, on entering on a lease of the large farm of Caverton Mill, in that county, at this term, paid an average of £105 a head for eleven good, but not first-class firm horses at two dispensing sales in this neighborhood. Their ages varied from five to eight years. They had a large dash of the Clydesdale, but were not pure. An East Lothian farmer recently paid about £1,100 for twelve ordinary horses. These prices are more than double what was paid about ten years ago, and

best Clydesdales of the day, charges forty-five guineas for the service of each mare by his renowned horse Prince of Wales. At this season he works the stallion two hours daily, in heavy chain harrows, in order to improve his procreative powers, which are already unrivalled by those of any other Scotch horse of the breed. Mr. Finlay Dun, Sir George R. Phillip's agent at Weston Park, Warwickshire, as well as several others, also work their stud sires, and give them easy rounds with the best results. The great point, therefore, is to avoid over-feeding, over-working, and unnatural treatment of any sort with the stallions. Breeding mares may be working the greater part of the year, if they are in careful hands, and are not put much in shafts as foaling approaches. No farmer should breed from a mare, any more than a horse, with the remotest appearance of unsoundness, especially hereditary defects. This point is not sufficiently attended to; but it must have more attention if horse-breeding is to be remunerative. And it should pay, particularly on light land, well fenced farms, with a little pasture of moderate quality attached. For the fact of the young colts, too, it is essential that the land should be pretty free from small round stones. The climate is better to be somewhat moist. Wire fencing is dangerous, hedges or good stone walls are better for horse grazing. All these requisites can be had, and it must be patent to most people that more of the farmers time and attention should be bestowed upon the breeding and rearing of good sound horses."

### THE BRIGHTON CUP.

The London Sporting Life says: "Old Preakness looked as bright in his coat, as hard in his muscle, and as clean in his legs as a four-year old, and as he came out on the course to walk over, he was received with a volley of cheering, which sufficiently testified how English turfites appreciate owner as well as horse. But the strange thing is that our present Cup horses, such as they are, seemed 'stumped up' one and all, for there was not a single representative of old England at Brighton, consequently Mr. Sanford's horse walked over. Lillian was in the paddock, but Mr. Saville wisely elected not to send his mare to the post, but to permit Mr. Sanford's horse to receive the forfeits unimolested. It is certainly hard lines on a thorough sportsman, who has brought a team of racehorses several thousands of miles, to find that the second time his horse is stripped in proper trim, all his opponents vanish. Both the Goodwood and the Brighton running has shown Mate to be a slow horse, and I fear he will not place any important race to his owner's credit, be he ever so leniently handicapped. But the great, lengthy, leathering Preakness is a horse of quite another class both as to symmetry and action, and I also have hopes of the four-year-old bay finally developing into a racehorse."

CAMPBELL'S QUININE WINE.—Report from Dr. J. Baker Edwards, Ph. D. D.C.L. F.C.S. Professor of Chemistry and Microscopy.

I hereby certify that I have carefully analysed the samples of "Quinine Wine" submitted to me by Messrs. Kenneth Campbell & Co., with the following result:

No. 1.—Dark in color and turbid, deposits a muddy sediment on standing, has a sweet and acid taste, Orange Flavor and scarcely bitter, yields on evaporation a thick syrup of inverted sugar, contains only a microscopic trace of Quinine and Quinidine. Is made with Orange Wine.

Sample X.—Dark color, with dark muddy deposit on standing, has an acid and slightly bitter taste, contains Cinchonine but no Quinine. Is made with an acid wine, not sherry.

No. 3.—Campbell's—Light color, clear, with no deposit, contains Disulphate of Quinine in the proportion of 1 grain to two fluid ounces. Is made with sound sherry wine.

N.B.—The latter (Campbell's), is the only genuine "Quinine Wine" of the three samples examined.—Signed,

JOHN BAKER EDWARDS, Ph. D. D.C.L. F.C.S. Prof. of Chemistry and Microscopy Bishop's College and College y. f. utra

gained appears to be an increase of weight. As before remarked, many of our thoroughbreds and trotters are high enough; but to say that a horse is sixteen and one-half hands and a man is six feet gives but a very imperfect idea of his actual size. It is out of this general feeling that an increase mainly in weight is desired that has grown the practice of publishing the weight of stallions advertised for sale—a practice that has been ridiculed by professional horsemen, but which, in spite of the ridicule, is constantly growing in favor, because it gives a much better idea of the size of the horse than the simple statement that he is so many hands high; and the general compliance with this custom is proof that the desire for general increased weight in our horses is widespread.—N. Y. Herald

### FEEDING HORSES.

Every good groom knows that sound oats and beans in due proportion, and at least a year old, are the very best food for a galloping horse, the only food on which it is possible to get the very best condition out of a race horse or a hunter.

It has also recently become known that horses do slow work and get fat, indeed too fat on maize—Indian corn—which is frequently one-third cheaper than the best oats.

In the East, horses are fed on barley, and it is a popular idea with English officers who have lived in Persia and Syria, that the change of food from barley to oats often, when imported, produces blindness in Arab horses.

Now, although no men understand better or so well how to get blood horses into galloping condition as English grooms, they do not, and few of their masters do, know the reason why oats and beans are the best food for putting muscular flesh on a horse.

The agricultural chemist steps in here, makes the matter very plain, and shows that if you want pace, Indian corn, although nominally cheaper, is not cheap at all.

According to Dr. Voelcker's and other chemists' analysis, we find, in round numbers in oats, beans, barley and maize, the following constituents:—

	OATS.	BEANS.	BARLEY.	MAIZE.
Water.....	14.3	14.5	14.3	14.4
Nitrogenous or muscle producing compounds.	12.0	25.5	9.5	10.5
Starch and other nitrogenous heat & fat producing do. ....	54.1	43.0	44.1	61.0
Oil, as ready-made fat.....	6.0	2.0	2.5	7.0
Indigestible woody fibre....	10.3	11.5	6.0	5.5
Mineral matter ash.....	3.0	3.5	2.6	2.1
Total.....	100.0	100.0	100.0	100.0

It was a common saying in Leicestershire, before deep draining, clean-cut fences, increased sheep feeding, had improved agriculture at the expense of fox-hunting, after one of those five- and forty minute runs at best pace that are now so rare, "It found out the horse that ate old beans and best oats."

In fact they made experiments they did not understand, which it was left for the modern chemist to explain.

When we feed a bullock, a sheep or a pig for sale, after it has passed the store stage we want to make it as quickly and as cheaply as possible; but with a horse for work the object is, to give him muscle—in common language, hard flesh.

There are times when it is profitable to make a horse fat—as, for instance, when he is going up for sale, after a severe hunting season.

For this purpose an addition of about a pound and a half of oil-cake to his ordinary food has a good effect.

It is especially useful when a horse that has been closely clipped or singed is in low condition. It helps on the change to the new coat by making him fat. A horse in low condition changes his coat very slowly. Now oil-cake is composed of:

Moisture.....	12.00
Oil.....	11.50
Nitrogenous compounds.....	29.70
Mucilage and Digestible fibre.....	29.70
Woody fibre.....	12.00
Mineral matter (ash).....	7.00
	100.00

When from any cause there is difficulty in getting a supply of the best oats, an excellent mixture may be made of crushed maize and

With some this would be an advantage. The wheel would be a good deal smaller in diameter than those now in use, which would render it stiffer. The horse could be sustained by using a tree with as much bearing as the saddle of the vacquero, and a little practice on the part of the driver, would make the retention of the equilibrium not very difficult.

### THE KILLING OF WILD BILL.

DEADWOOD CITY, Black Hills, Aug. 6.

One of the many tragic events here was the killing of Wild Bill by Jack McCall. In the early part of last spring the Buffalo Bill troupe were performing in Louisville. The principal actors were Buffalo Bill, Texas Jack, and Wild Bill; the latter person's true name was James Hayscock. Wild Bill, as he was called by his acquaintances, had the reputation of being the best pistol shot in the West, and gloried in having killed thirty-six men. Jack McCall is about twenty-five years of age, and claims to have been born in Jefferson County, Ky., near Jefferson-town, but has been for the last eight or ten years living out in the far West, hunting buffalo trapping, fighting Indians, etc. Jack says, that in 1869 Wild Bill, killed his brother in Kansas without cause or provocation. Jack's statement is that his brother and Wild Bill had a little misunderstanding in a saloon in Kansas about some trivial matter, and Wild Bill proposed to fight it out. McCall said it was no fighting matter, and did not want to fight, and that he was not armed. When Wild Bill, having two pistols, threw McCall one of them, and said: "Defend yourself." McCall took the pistol, but before he could raise it Wild Bill shot him dead. Young Jack McCall, hearing the particulars of his brother's death, registered an oath that he would kill Wild Bill on sight, and faithfully has he kept his word. Wild Bill was seated in a gambling saloon, playing cards, when Jack McCall entered, put a pistol to his head, and blew his brains out. The gamblers, of whom there is a great many here, buried Wild Bill with a great deal of ceremony, and hired lawyer, and prosecuted the case with all the power and vigor that money and a desire for vengeance could bring to bear. The miners, on the other hand, employed a lawyer and made a vigorous defence, which resulted in the acquittal of Jack McCall.—Louisville-Courier Journal.

WINNING OWNERS AT SARATOGA.—For the first time since 1872 does the name of Col. McDaniel stand at the head of the list of winning owners at the Saratoga meetings, just concluded, he being credited with the sum of \$9,960, of which amount Brother of Bassett won \$4,700; Vigil, \$2,380; and Madge, Mattie A., Big Sandy, and Princess of Thulo the balance. P. Lorillard comes second, with \$9,370, of which Parole won \$3,300; Zoo-Zoo, \$2,000; Merciless, \$2,900; and Courier Barricade, and Bombast the remainder. A. Belmont is third, with \$8,000, including \$500 in plate, \$4,100 of which must be credited to Sultan, \$3,600 to Susquehanna, and the rest to Pasience. Mr. H. P. McGrath ranks fourth, with \$4,975; Mr. George Longstaff fifth, with \$3,570; Mr. T. Puryear sixth, with \$3,150; Mr. J. A. Grinstead seventh, with \$2,890; Mr. E. A. Clabangh eighth, with \$2,720; Mr. G. L. Lorillard ninth, with \$2,100; and Messrs. Davis tenth, with \$1,500. Lexington still maintains his place at the head of winning sires, with \$12,100; Lexington follows, with \$8,800; and Australian third, with \$4,830.

MIND, MATTER, MONEY, BRAINY.—Webster's Quarto Dictionary, as now published, has cost more intellectual labor, more money in its "getting up," and contains more matter, and a larger number of beautiful engravings, (300 or more, with four pages of colored plates,) than any single volume ever before published for popular use in this or any other country. It is largely the standard in England as well as in this country. Bell & Daldy, the publishers of Bohn's libraries, are the London publishers of this magnificent volume.

A CARD.—To all who are suffering from the errors and indiscretions of youth, nervous weakness, early decay, loss of manhood, &c., I will send a recipe that will cure you, FREE OF CHARGE. This great remedy was discovered by a missionary in South America. Send a self-addressed envelope to the Rev. JOSEPH T. INMAN, Studio D, Bible House, New York City. 250 em

which has lately devastated the West doubly caused by the thinning out of birds, such as grouse, prairie hens, etc., which feed upon them. The great and extensive service done to the farmer, gardener and florist, only becoming known by sad experience. Spare the birds and save your fruit, the little corn fruit taken by them is more than compensated by the vast quantities of noxious insects destroyed. The long-persecuted crow has been found by actual experiment, to do far more good—the vast quantity of grubs and insects he destroys, than the little harm he does in the few grains of corn he pulls up. He is one of the farmer's friends.—Dirigo Runi.

### THE FUN OF THE PULL-BACK.

"Tight dresses" is the subject of a letter in the London Sporting Gazette. Never any writer, have I seen the hideousness and absurdity of the present fashion of tight costumes to greater advantage than at Lord Cricket Ground. Many ladies were rash enough to recline on the green sward, and their frantic efforts to rise from their recumbent position were a source of great amusement to the bystanders. The spectacle appeared to afford as much fun as a sack race to which indeed it bore some resemblance. A certain duchess, I am told, behaved with the greatest self-possession under these somewhat humiliating circumstances. Finding she could not rise in the ordinary way, she flung herself on all fours, and by throwing her weight alternately to right and left, finally succeeded in gaining her perpendicular. These costumes are the jokes of the season. Crowds of gamine gather round the carriages in Regent street in order to watch the swathed and awaddled mummies of fashion struggle to mount their carriage-steps; and the other day I was the witness of a funny scene in Trafalgar square. A lady thus bandaged made no less than six ineffectual efforts to get into a bus. The passenger-grow absolutely apoplectic with suppressed laughter and even the gallant conductor who was doing his best to help beauty in distress, could hardly struggle his cachinnatory inclinations. I am sure that the street boys at any rate, will be disconsolate when the amusing froak of fashion dies out.

A KNOWING MARK.—A Portland Me., exchange is responsible for the following story: "Dr. J. T. Gilman's mare Fannie is an equine of unusual intelligence. A day or two since, while the doctor was visiting a patient, the horse was left in the yard, as usual, without being fastened. After the doctor went into the house Fannie walked up the walk and began bawling a rose bush. The servant girl came out and spoke to her and she turned and walked back to the door. In a few moments the horse turned again, and began to whinnie and stamp on the door-step. The girl came out again, and was startled to see Fannie running out her tongue at her, and acting strangely. The organ protruded its entire length, and was kept exposed with a determination worthy of a patient undergoing examination by a physician. The girl finally examined the member, and found a thorn from the rose bush had got uncomfortably fastened to it. She removed it, when the thankful animal made a profound bow and went back and stood quietly by the door until the doctor had completed his call." It is now stated that later in the day the mare called at Stine art establishment, and, seeing a beautiful ten-cent chromo, entitled "Thanks, La," affixed in a neat frame by the door, waved it, bearing it proudly home, called out the servant girl a second time, and delivered to her the treasure as a token of grateful regard.

We read in the Bible, which no one denies, That Pharaoh succumbed to a legion of flies. Had the obstinate monarch though, only been born In these latter days he'd have laughed them to scorn— He'd have bought a nice fly trap at Piren's & Co. and Israel might then have never been free. HARRY PIREN, 75 & 77 Yonge St., Toronto.