

loin straight, wide, and ribbed home, the thighs of good substance; and although the being cut-hammed, or having the hocks turned inwards, is defective in beauty, it often bespeaks a trotter.

The criteria of a horse peculiarly adapted to the labour of agriculture are thus given by Culby: "His head should be as small as the proportion of the animal will admit, is nostrils expanded, and muzzle fine; his eyes cheerful and prominent; his ears small, upright, and placed near together; his neck rising out from between his shoulders with an easy tapering curve, must join gracefully to the head; his shoulders being well thrown back, must also go into his neck (at what is called the points), unperceived, which perhaps facilitates the going much more than the narrow shoulder; the arm or fore thigh, should be muscular, and tapering from the shoulder, to meet a fine, straight, sinewy, and bony leg; the hoof circular, and wide at the heel; his chest deep, and full at the girth; his loins, or fillets, broad and straight, and body round; his hips or hocks by no means wide, but quarters long, and the tail set on so as to be nearly in the same right line as his back; his thighs strong and muscular, his legs clean and fine-boned; the leg bones not round, but what is called lathy or flat."

[Extracted from a Treatise on Agriculture by Wm. Evans, Esq.]

#### WINEGAR'S AUTOMATON GATE.

A rather annoying inconvenience has been long felt by carriage drivers and equestrians in passing gates, from the necessity of alighting to open them. This has led to various contrivances to obviate the difficulty. Most of these have proved failures, or they have required so much work and pulling for swinging the gate open, as to be little or no better than the simple old-fashioned process of jumping down and doing it directly by hand. In England, the large gentleman farmer, who in his daily rounds is compelled to pass many gates, has a horse trained on purpose that shall allow him to open the gate easily on horseback; and the resident on a large estate builds a costly porter's lodge, and employs a person by the year to watch the entrance and open when needed.

We have lately witnessed the successful operation of a simple contrivance, effected by C. WINEGAR, Esq., of Union Springs, N. Y., that obviates all these difficulties, at a permanent cost not exceeding ten or twenty dollars, and that enables the horseman or carriage driver to open and shut the gate without stopping, with as much ease as he could ring a door bell, and which a child five years old might easily perform. We passed repeatedly through a gate of this kind, for some months, in successful operation on the grounds of Wm. H. CHASE, of Union Springs, without stopping the vehicle, either for opening the gate or for closing it after us. The only labor required is to wind up

a weight by means of a windlass, which a boy ten years old performs once for about fifty motions of the gate.

This contrivance, not unlike a clock, consists of two principal parts, the *running*, and *regulating* parts. The weight which opens and shuts the gate, is contained in a tall box, seen on the left side of the figure, and resembling in external appearance a large post. The weight in descending, turns a crank. A rod placed between this crank and the gate, and connected to each, receives by this means a reciprocating motion, and would open and shut the gate in rapid succession until the weight reaches the ground, were its motion not controlled by the latch which fastens it shut when it strikes the post, or which fastens it open, as soon as it reaches the smaller post placed at the proper point for this purpose.

The opening and shutting is effected from the carriage or saddle by simply giving a slight pull or jerk on the loop suspended from the arm of the tall post, a short distance from the gate. A wire, extending from this loop to the hinge-post, and thence across the top of the gate to the latch, instantly sets it free whenever a slight pull is given, and the crank and rod immediately draw it open, where it is retained by the latch. On passing through, the loop is pulled on the other side, loosening the latch again, and causing the gate immediately to close.

By placing the two tall posts with the loops, sufficiently distant from the gate, the opening may be accomplished at any desired time before arriving there, an increased length of the wire being all that is required.

This ingenious piece of mechanism was the result of necessity. The inventor, C. Winegar, whose residence, is a short distance back from the road, the entrance being at a steep inclination, found it difficult to induce his horses to stand while the gate was opened in the usual way. He was therefore led to adopt this new contrivance to obviate the necessity of stopping. He has, since our cut was engraved, adopted a neater arrangement for the wire work, which is placed *under ground*, connected as formerly to the gate-latch at one end, and being supported by a low post at the other, where there is a horizontal lever for giving motion to the wire, and which is merely touched with the hand in passing, for throwing the gate open or closing it.

He also finds a decided benefit from attaching a *fun wheel* to the crank, for lessening momentum; at the same time that any degree of power may be given to the mechanism. This is more especially needed where a large or heavy gate is employed. In all other cases a light iron gate, or a wooden frame with iron rails, is the best, as requiring less force, striking with less jar, and being unaffected by wind.

As an ordinary weight will move the gate about fifty times, all that is commonly necessary is to wind it up regularly once a week. In extreme cases, a workman, who

goes regularly to his work each morning, may be employed to raise the weight as he passes,—requiring only a few seconds.

Such an invention as this is destined to become of great value on all large plantations, which the manager must superintend on horseback; and it must be especially so in England. We hope our cousins there will not do as they have done with some other American inventions, endeavor kindly to relieve us from the claim to its originality—or prove it was introduced here from England, (like McCormick's Reaper and Wood's Cast plough,)—or perhaps show conclusively, as they have done in some instances, that our old neighbor and friend Winegar was after all born and brought up on the other side of the wave. England has quite enough to be proud of, without such small drafts upon the Yankees.

#### SPLENDID OATS.

Mr. Richard Montgomery of Yonge street exhibited on Monday, in the city, several stalks of oats of a quality rarely witnessed. Upon a stalk, which was one of twelve from a single seed, we counted 150 grains. Giving altogether from a single root, upwards of a thousand grains. The oats were of the grim visaged, bearded kind—but they were wonderfully plump—and far advanced to maturity. The oat crop generally will this year far exceed anything probably ever known in the country.—*Leader.*

PRICE OF WHEAT.—Hunt's Merchant's Magazine publishes a table of the price of wheat in Albany on the first day of January for sixty-one years. It is from the minutes kept at the office of the Van Rensselaer Manor at Albany, where large amounts of rent are payable in wheat, or a cash equivalent, on the first of January each year; and as two parties are deeply interested in the price, it is probably the most reliably correct of any record that can be obtained. The list commences in 1793, when the price was 75 cents a bushel—only five times in the sixty-one years wheat has been \$2 or upward, per bushel, while it was seventeen times at \$1 or under—twice at seventy-five cents. Only once in thirty-seven years, that is since 1817, to wit in 1837, has it reached \$2. The average price for the whole period is \$1 38. For the last 30 years it is \$1 25.

The Scientific American announces a machine for picking geese, the result of a number of years of labor, and one of the most ingenious pieces of mechanism ever seen. It not only plucks the feathers, but separates the long ones from the short ones, and cleans them perfectly while passing through the machine. It will pick forty-five geese per hour, and must materially affect the price of feathers.