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POSTAGE FREE.

### The Field.

#### The Grantham Farm Gate.

THE accompanying illustrations represent a farm gate recently patented by Mr. G. Rykert, of St. Catharines, and of which also a notice appears in the advertising columns of the present number of this journal. We have received from Mr. Rykert a small model of the gate, from which the artist has made the drawings. Judging from the model and the accompanying description, this new invention seems to possess many important advantages, and appears to combine the recommendations of cheapness, facility of construction, convenience, and general efficiency. For the particulars of its construction we refer to the illustrations and the subjoined description. The first illustration represents the chief peculiarity of the gate, i.e., a cast iron grooved wheel, on which one of the middle boards of the gate rolls, and which is also furnished with a pivot on which the gate turns in place of hinges. The following is the maker's account:—

"The gate is opened by pulling out the pin II, above the top or second board of gate at the toe-post—lifting slightly and moving from left to right, half the width of gateway or less—then swinging to the right as an ordinary gate.

Bar A on the toe-post to be fastened by bolts or screws so as to be readily shifted from A to B or C, as the depth of snow in winter may require.

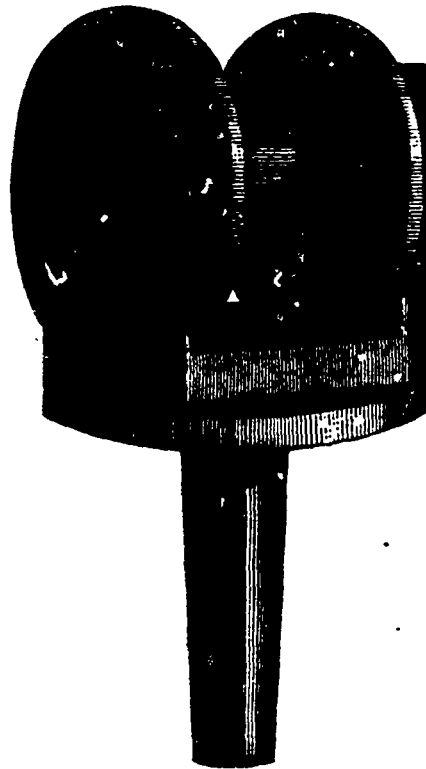
The notch or catch to fasten the gate on the cross-bar A (toe-post) is intended to be made either on the top or second or third board, though the second would be preferable, as it would then be on a level with wheel.

The bearing bar D, on heel-posts, is to be fastened to the posts by bolts and nuts, or by large screws, so as to be readily shifted to A, B or C, or higher as the snow may render necessary. It is to be made of hard wood. By shifting the bars the shovelling of snow is dispensed with.

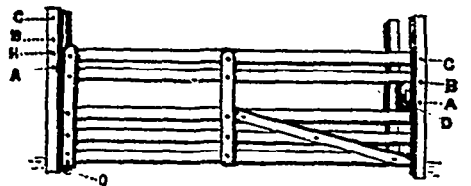
The groove in wheel, K, must be of a sufficient depth to prevent the board which rests upon it from flying out when roughly opened, or from splitting. A wheel about 3 inches diameter (cast iron) with solid portion or axis 1 inch in centre for board to roll on, and 6-10 inch where it slides into the clip, would answer—thus only requiring with hard wood cross-bar a space of six or seven inches between the second and third boards. The third is intended to be as close to the bottom of cross-bar as it can be without rubbing, so as to prevent the bar above flying out of the groove in wheel, K.

The clip G, upon which the wheel rests and within which it turns, is to be a cast-iron casting with a slit on the upper part, so that the outer ends of axis

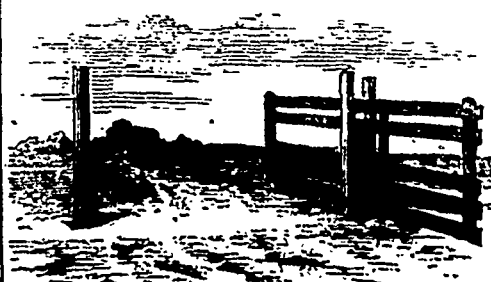
may slide into this. The bottom of clip is intended to fit into a cast-iron socket or washer let into top of



cross-bar D with a rim, level with or slightly below top of bar, and the upper part of the bolt (bottom of



clip G) is to be cast so as to fit this, thus preventing any wear or sagging.



The brace prevents any sagging or twisting of gate, and also helps to balance.

The boards, five, or more, if fancied, are intended to be of pine, inch stuff, (the lighter or heavier will often be needed) of any width parties may prefer. The model shows six inch boards and six inch space in all, but between second and third bar this is greater, owing to the wooden wheel and clip not being strong enough to work thinner, and no other kind at the time it was made being available. The boards are intended to be sufficiently long to pass between toe-posts and be flush with front of them, so as not to be easily displaced. A notch is to be made on first, second or third board, to fasten on bar A, B or C. A pin, II, passes through the one post and into the other, over the notched board, so that it cannot be lifted or forced open by hogs or cattle.

For an extra heavy gate (or light where fancied) a castor wheel, O, can be attached to the top of gate to move and adjust itself, the same as an ordinary castor wheel, to be an iron casting of sufficient thickness to prevent it cutting into ground.

The wheel, clips, socket, washers, &c., can be cast for, say about 30 cents, less than one-half the cost of the hinges in ordinary use. All leverage and consequent sagging of gate, and displacement of posts in spring and fall, is avoided; dragging of toe of gate avoided; no renewing of hinges, bolts, screws, or righting of posts required; no shovelling of snow in winter necessary, and no latches to get out of order. When open the gate is on a balance, without any strain, as the alternate sides of wheel K, when gate is fully opened, are flush with each heel-post, thus each post bears its share of the strain when very roughly opened, hence it cannot easily get disarranged.

By allowing the third board to rest on the cross-bar of the toe-posts, hogs can, when so desired, pass through, while cattle or horses could not.

Its cheapness, ease of construction, lightness, durability, and adaptation for winter use, and particularly in Lower Canada, cannot fail to recommend it to the farming community."

#### Difficulties of Turnip Culture.

MANY persons who are somewhat alive to the importance of growing a supply of roots, are deterred from the attempt to do so because of the labour and trouble incident to such crops. "I would like right well to raise a lot of turnips, but they want such a sight of attention, and hoeing is such nasty, back-breaking work." In this way do many farmers talk when root crops are urged upon their attention.

This common objection to turnip-growing is part truth, part mistake, part dislike of innovation, if not downright sloth. It is part truth, for it must be confessed that more labour is required to grow roots