S. L. FISHER.

Swinging Gate.

No. 49,615. Patented Aug. 29, 1865.

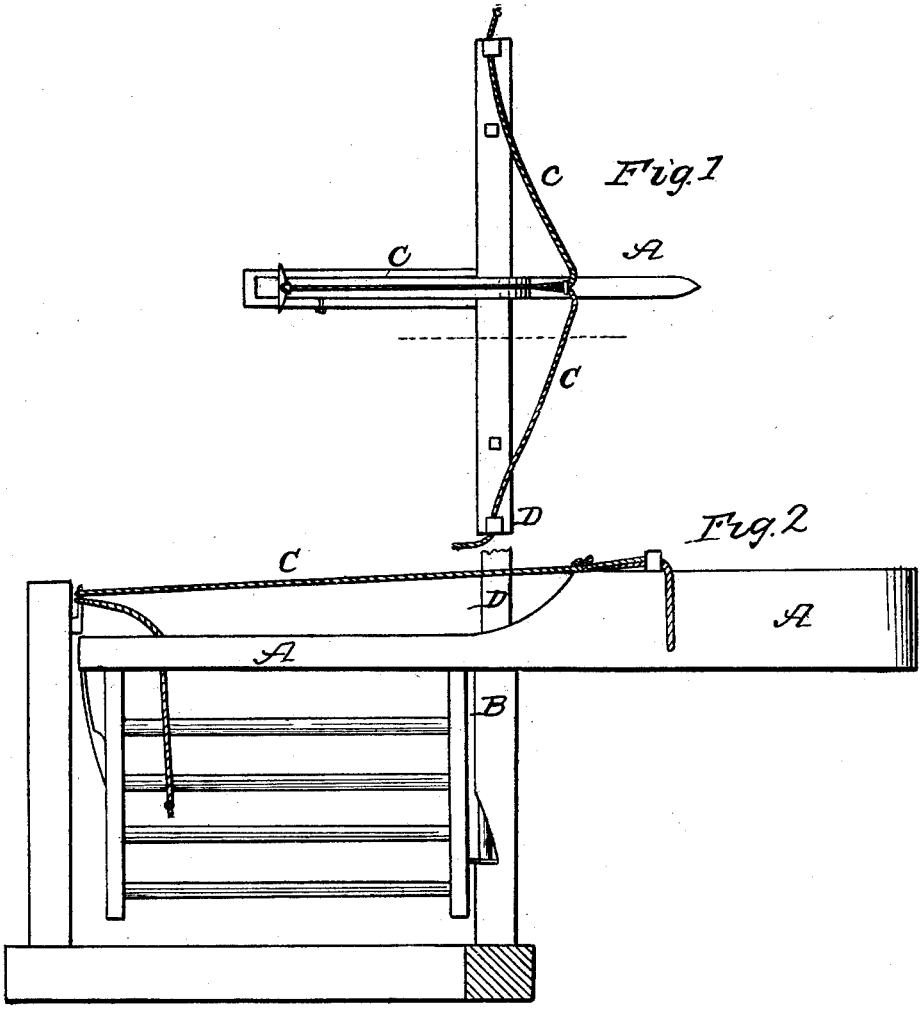

Fig. 1

Fig. 2

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SIMEON L. FISHER, OF BRIMFIELD, ILLINOIS.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **49,615**, dated August 29, 1865.

To all whom it may concern:

Be it known that I, SIMEON L. FISHER, of Brimfield, in the county of Peoria and State of Illinois, have invented a certain new and useful Improvement on Gates; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a top view of my improved gate; Fig. 2, a side view of the same.

Like letters in both figures of the drawings indicate corresponding parts.

The nature of my improvement consists in the construction of a wind-paddle attached to the top of an ordinary gate, (for keeping roads or lanes on farms closed when desired,) and constituting a part or portion of the same in the framing thereof, having a broad flat surface projecting outwardly from the gate, over the top of the post, and secured thereto by a pin or bolt, so as to allow it to swing freely therefrom, whereby the broad flat surface of the paddle, in case the wind should blow rather freely or too strong, counteracts the effect of the same on the gate when being opened, and thereby enables it to be done freely and without any over-exertion to the person opening it, which would be and is otherwise the case with the gates now in use.

Considerable difficulty is experienced in opening gates of this description by a person on foot when the wind is blowing strongly, the surface to which they extend from the post to which they are hung being such as to offer considerable resistance to the wind, and thus require an over-exertion to control them; but more particularly is it difficult where the person attempts to do it horseback or from a vehicle, by pulling stout cords attached to the latch, suitably arranged to operate through friction-rollers from a post on each side in a line with the gate-post, the leverage or play of the cords from the latch to the point taken hold of being so great as to increase the difficulty, than would be were the person to alight and open the gate directly by the hands, and thereby to a great extent this arrangement is rendered only useful when the wind is calm, the person having to undergo the same inconvenience as before in dismounting from his horse or alighting from his vehicle. Therefore to make it effective and otherwise assist the person in opening the gate directly, this paddle herein referred to is constructed with a broad flat surface at its outwardly-projecting end, so as to equal or balance or counteract the pressure of wind between the two, whichever way it may be blowing, or whatever direction the gate may be opened.

To enable others skilled in the art to make and use my invention, and that part or portion to which it is connected, I will proceed to describe its construction and operation.

A represents the paddle. That part or portion of it projecting outwardly from the gate is made wider than the other portion attached thereto, as seen clearly in Fig. 2, by an additional piece or pieces joined and held together by battens screwed onto them, or material may be had of the requisite width without doing this. The extent of this projecting surface is governed according to the degree of resistance offered to the wind in proportion to the degree of resistance encountered by the gate on its being opened, so that whichever way the gate may be opened the effect of the wind on it or the projection is such as to balance them equally, and thereby prevent any undue preponderance of pressure either upon one or the other. Thus if the gate is opened toward you, the broad flat surface of the paddle, being acted on by the wind, serves to assist in diminishing the over-exertion that would be otherwise required, or, in other words, the gate is opened as if the wind was perfectly calm. The projection is cut or curved down at the point where it rests on the top of the post B, and a bolt or pin passed through it into the same, so that when the gate is opened it may swing freely therefrom. Being properly hinged at the bottom, (see Fig. 2,) the projection from its leverage and weight also serves to prevent the gate from sagging down, giving to it a stiff, uniform steadiness as to admit of its being opened freely to the fullest extent without lifting or easing the same by holding it up, as is generally the case.

To obviate the inconvenience of dismounting when horseback or alighting from a vehicle for the purpose of opening the gate, a stout cord, C, is attached to the top of a spring-latch, the

lower end of it being screwed to the front edge of the vertical bar of the gate. The cord then extends down the top of the bar to a point a little beyond the line of fencing, where it is joined by another stout cord, the two passing through a double friction-roller box, and thence separating pass in opposite directions, each through a friction-roller box attached to a post, D, erected on each side of the gate in a line with the fencing. The two then hang down sufficiently low to enable a person riding or driving up to conveniently take hold of, and by pulling the same the spring-latch is pressed back out of the catch in the post and the gate is immediately opened, and the person, after passing through, by taking hold of the cord on the other side, closes it. The extension of the cords on the paddle beyond the line of fencing, as described, is governed according to the leverage or play required to operate the ropes effectually. The posts are placed at such distance as will allow room enough to the gate to open clear without interfering with the person desiring to pass through.

For convenience the posts may have elbows projecting outwardly into the road somewhat, so as to obviate the necessity of driving or riding off to one side of the fence to open the gate, but do it from the middle of the road. There are other ways in which it may be done, but the most desirable will readily suggest itself.

It will be observed that my improved manner of relieving the person from a more than ordinary exertion required in opening the gate against the wind, by the broad flat surface of the paddle attached to the same, when used in combination with the cords and posts as arranged, is of a decided advantage in relieving the cords from the straining to which they would otherwise be subjected, consequent upon the extent of leverage or play allowed them from the point pulled to the latch. If cords have been or are used without this paddle, nine chances out of ten the person has, or would have, to dismount or alight to open the gate, the cords proving ineffectual to accomplish it against the wind, whereas the use of the two together renders the utility of the cord arrangement apparent at once.

Having thus described my invention fully, what I claim therein as new, and desire to secure by Letters Patent, is—

The construction of the wind-paddle A, forming the top of the gate and projecting beyond the end of the gate, in combination with the ropes C, when arranged and combined as herein described, and for the purposes set forth.

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Witnesses:
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