





# UNITED STATES PATENT OFFICE.

CLARENCE C. KORNS, OF JOHNSTOWN, PENNSYLVANIA.

## WIRE GATE.

SPECIFICATION forming part of Letters Patent No. 626,545, dated June 6, 1899.

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*To all whom it may concern:*

Be it known that I, CLARENCE C. KORNS, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented new and useful Improvements in Wire Gates, of which the following is a specification.

This invention relates to certain new and useful improvements in frameless wire gates, the object being to provide a gate of this type with means for exerting a tension or strain upon the wire fabric when stretched across the gateway, said fabric being attached to a spring-actuated drum, about which the fabric is wound when it is desired to have the gateway clear.

In carrying my invention into effect one of the gate-posts supports a spring-actuated reel or drum, to which a section of the wire fencing is secured, the opposite end thereof being attached to a bar which is adapted to be placed in engagement with means carried by the other gate-post to hold the fencing stretched across the gateway; and with the above ends in view the invention consists in the construction and combination of the parts, as will be hereinafter set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a side elevation, the drum and ends of the supporting-brackets therefor being shown in section. Fig. 2 is a plan view of the drum. Fig. 3 is a detail perspective view showing the construction of one of the disks which forms a part of the drum. Fig. 4 is a detail perspective view of a portion of one of the extension-bars between which one end of the wire fencing is secured. Fig. 5 is a detail perspective view of the upper plug, which engages with the reel; and Fig. 6, a detail perspective view of the lower plug.

A refers to one of the gate-posts, said post carrying brackets B B', the ends thereof having apertures for the reception of plugs, as will be hereinafter set forth, and these plugs, which engage with the brackets, support a spring-actuated reel or drum C. The lower plug *b* is provided with a portion *b'*, which passes through the aperture in the end of the bracket B', so as to be held in rigid engagement therewith, an efficient means for caus-

ing such rigid engagement being to provide the aperture in the bracket with a thread and the depending part *b'* of the plug with a lock-nut. The portion of the plug above the bracket is provided with a flange, which forms a bearing for the lower end of the center tube or pipe D of the reel, while the portion above the flange fits within the pipe and is reduced, so as to provide a part which will pass into the lower end of the helical spring F, which is located within the tube D, the end of said spring passing into a vertical aperture in the plug.

The upper plug E has preferably two collars formed thereon, and a depending portion *e*, which passes into the upper end of the spring F and the flange *e'*, lies over the upper end of the tube D, the projecting portion above the flange being rounded, so that it may turn freely in the aperture in the bracket, and above said rounded portion the plug is key-ended. The spring is attached securely to the upper plug, and said plug is held so as to be in intimate engagement with the pipe or tube by a set-screw E'. It will be noted that by reason of the construction shown the ends of the helical spring, which is within the tube or pipe, are made fast to the plugs and that the pipe or tube turns freely on the lower plug, which is rigidly attached to a bracket, while the upper plug is fast to the tube and turns in the upper bracket; also, that the set-screw permits the upper plug to be turned to vary the tension of the spring without turning the entire reel.

Upon the tube D are mounted three or more disks G, to which are attached a series of slats, so as to form a reel or drum, and each of the disks is provided with a recess *g'*, in which recesses are placed semicircular bars *h*, which are clamped together and hold between them the fencing or wire webbing. These bars *h* are retained in place by means of plates *g''*, which are secured to the edges of the disks, so as to overlie the recesses *g'*. By this construction the bars are permitted to turn, so that a direct pull will come upon the fencing, and the bending thereof will be prevented at the point of connection with the reel.

To the lower disk of the reel there is attached a flange I, which flange serves as a support for the fencing and prevents it sag-



ging when wound upon the drum or reel. This flange is bolted or otherwise attached to the lower disk, and the bars *h*, to which the fencing is attached, rest thereon. The several disks have bolts or set-screws for connecting them to the pipe or tube *D*.

To the outer end of the gate there is attached a slat *K*, which carries an eye *k*, and when the gateway is closed this slat is adapted to lie between the fence-post *A'* and plates *a'* carried thereby, the plates having shoulders against which the bar will abut and end portions which lie over the bar. Pivotaly attached to the post *A'* is a lever *L*, which carries above its fulcrum a hook, and the upper end of the lever when the gate is closed is adapted to engage the upper plate, so that the lever will be retained thereby in substantially a vertical position when the gate is in engagement with the hook attached thereto. By the construction shown the spring exerts a tension upon the flexible gate and tends to keep it taut when stretched across the gateway, and when it is desired to open the gate it is only necessary to release the hook from the staple, when the gate will be wound upon the reel. Different styles of fencing may be used; but one end is always clamped between the semicircular bars, which are allowed to turn in the disks which form a part of the

reel, so that there will be a direct pull on the fencing, said bars turning in the recesses in the disks.

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

1. In a wire gate, the combination with a spring-actuated reel, of clamping-bars for the fencing held in pivotal engagement with the reel, a section of fencing or wire fabric connected to the bars at one end, a bar or slat attached to the opposite end of the wire fabric or fencing and means for holding it in engagement with the fence-post opposite the post which carries the reel, substantially as shown.

2. In a gate, the combination with a reel supported in a vertical position, of semicircular bars attached to the reel so as to turn in their supports the fencing being clamped between said bars, and means for turning the reel, for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLARENCE C. KORNS.

Witnesses:

E. G. KERR,

ALEX. N. HART.