(No Model.)

V. D. JOHNSON & V. OPPFELT.

FARM GATE.

No. 382,703. Patented May 15, 1888.

Fig. 1.

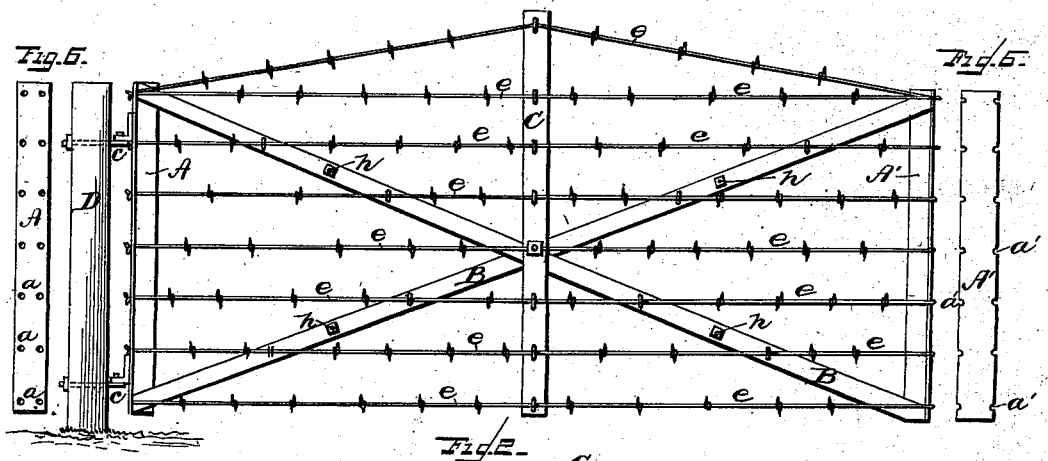

Fig. 2.

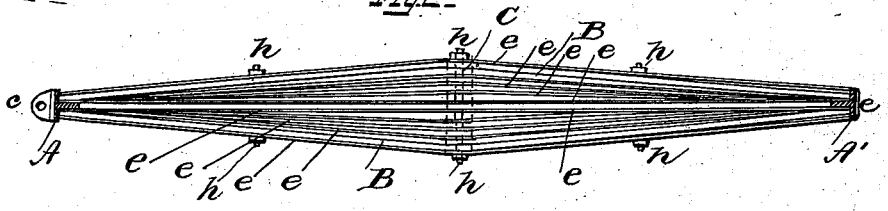

Fig. 3.

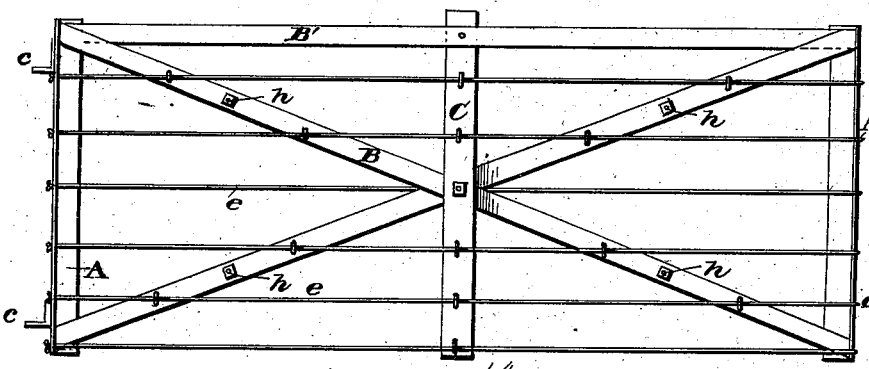

Fig. 7.

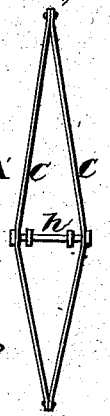

Fig. 4.

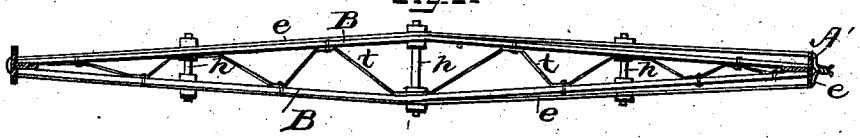

Fig. 10. Fig. 9. Fig. 8.

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UNITED STATES PATENT OFFICE.

VICTOR D. JOHNSON AND VICTOR OPPFELT, OF MOUNT PLEASANT, IOWA.

FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 382,703, dated May 15, 1888.

Application filed May 14, 1887. Serial No. 238,183. (No model.)

To all whom it may concern:

Be it known that we, VICTOR D. JOHNSON and VICTOR OPPFELT, citizens of the United States, residing at Mount Pleasant, in the county of Henry and State of Iowa, have invented a new and useful Improvement in Farm-Gates, of which the following is a specification.

Our invention relates to farm and yard gates constructed of metal bars, bracing-studs, and wires, so arranged and combined as to constitute a gate possessing great strength of light material.

We will proceed further to describe our invention by referring to the accompanying drawings, which constitute part of this specification, of which—

Figure 1 is a side elevation of a gate embodying our invention, having the top wires raised in the center, thereby serving as auxiliary braces. It is also shown as being hung to a post. Fig. 2 is a plan view of said gate, showing such parts as may be seen from above it. Fig. 3 is a side elevation of a gate having a horizontal rail at top, instead of the raised wires shown in Fig. 1. Fig. 4 is a horizontal section of the middle of the gate, showing, in addition to the center stud, intermediate studs placed above and below the center, and also zigzag bracing-bars placed in a lateral position between the parted sections of the main braces. Figs. 5 and 6 are elevations of the outer faces of the frame posts or stiles, respectively, showing notches for receiving the wires, by lapping them around the one, and holes in the other for inserting the ends of the wires preparatory to fastening them. Fig. 7 is an elevation of the center upright bars and center bracing-stud in transverse position with the gate. Fig. 8 is a cross-section of the upright frame-bars at the ends of the gate; and Figs. 9 and 10 are different transverse sections which may be adapted for the bars, forming the braces and center upright bars of the gate, which shapes secure great strength and stiffness in the use of light material.

In giving a more minute description we will use reference-letters, of which similar ones will indicate like parts throughout.

A refers to the hanging bar or stile of the frame-work; A′, to the swinging or latch bar of the gate, which parts are made of metal bars transversely of T shape, for convenience of attaching the other parts to them and for securing great strength and stiffness.

B are diagonal bars or braces, having their ends securely fastened to the ends of the upright bars A and A′. They, being in pairs or double, have their middle braced outward by studs *h* and zigzag bracing-bars *i* arranged between them, thereby forming transversely-arched braces to the gate. Additional intermediate studs, *h*, may be placed between said braces as assistant stiffening-stays, as is shown.

C are upright bars at the middle of the gate, fastened together at their ends, and having their middle also crowning or arched by being braced apart or outward by the stud *h*, and by it they are connected with the braces B at their general crossings, thereby forming a frame-work of great stiffness, on or through which frame-work wires *e* are stretched horizontally and fastened to it, as a barrier to stock. The center upright bars, C, may be extended higher than the end bars, A A′, and the upper wire arched or raised at its center, as shown at Fig. 1; or a horizontal bar or rail may be used instead, as shown at Fig. 3. The wires are preferably doubled or lapped around the bar A′ in the notches *a′*, and the ends are passed through the apertures *a* in the bar A, and are fastened by twisting the ends together. Barbs on the wires are of material benefit in preventing stock from rubbing or shoving against gates, as is their custom where no guards are used. Gates may, however, be made for certain purposes having smooth wires, as shown at Fig. 3.

D is an ordinary gate-post, to which the gate may be hung in any of the ordinary ways.

The stiffness of the bars B and C is materially increased over plane flat bars by having

them formed transversely, as shown at Figs. 9 and 10, or in other analogous, angular, or fluted forms.

Having thus fully described our invention so as to be understood by others, what we claim as new, and desire to secure by Letters Patent, is—

A farm-gate composed of upright metal bars A A′, and double upright bars C, and double diagonal bars B, with the center of said bars B and C sprung outward or pressed apart at their center by a stud, *h*, and stayed by zigzag braces *i*, as a supporting framework, in combination with horizontal wires *e*, substantially as shown, for the purposes specified.

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