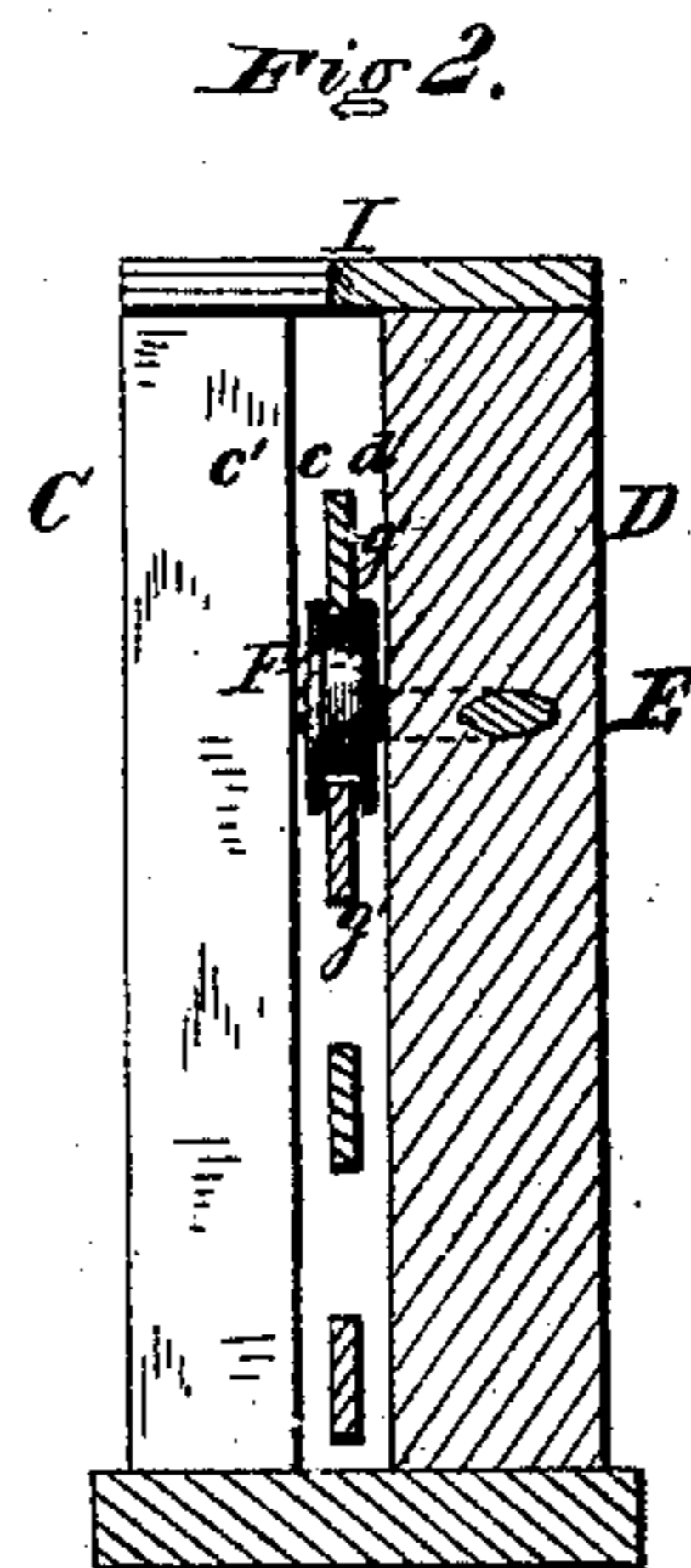
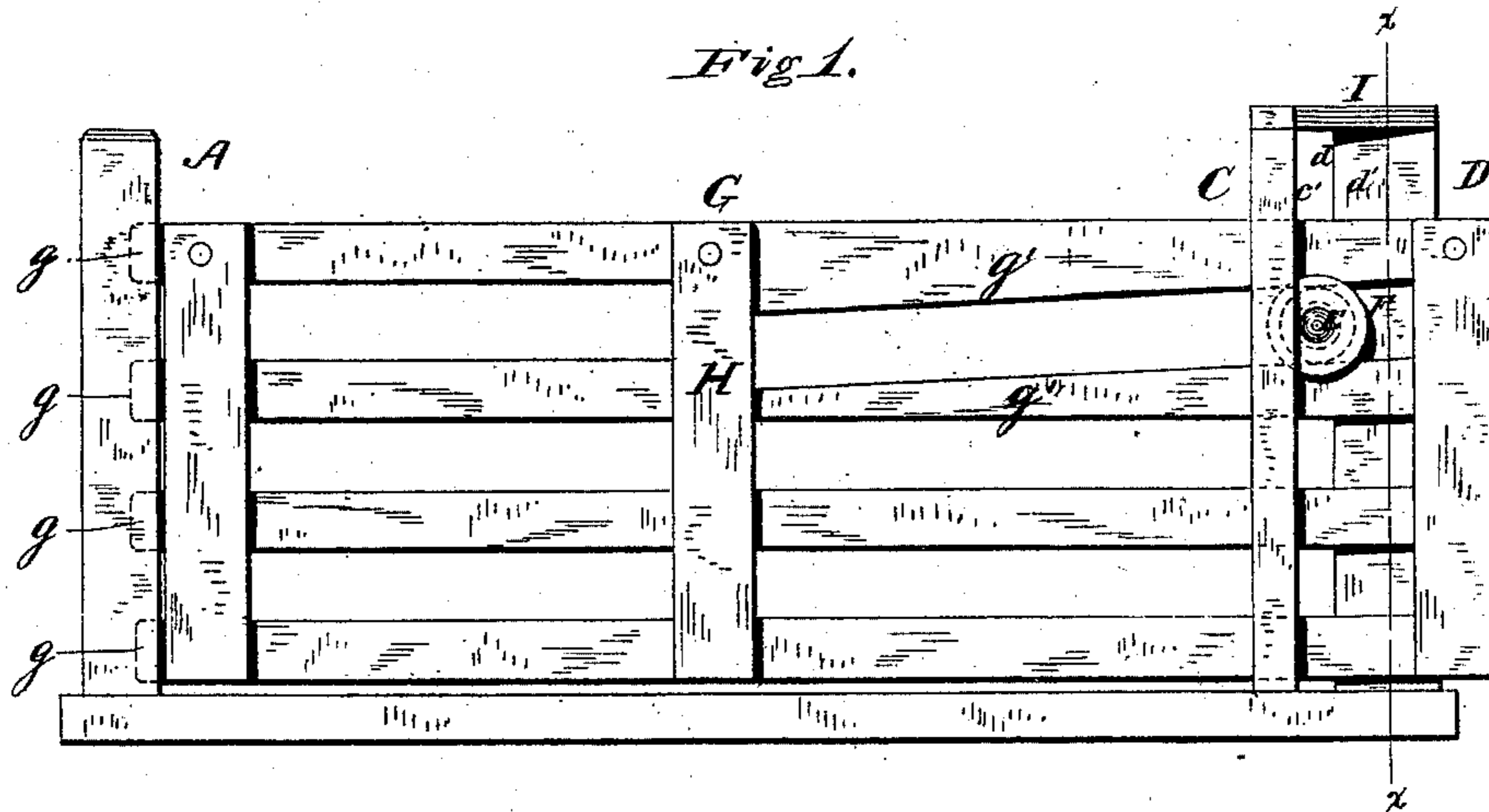


G. W. RODEBAUGH.
Gate.

No. 203,196.

Patented April 30, 1878.



Witnesses
Harry King
Wm A. Blackstock.

Inventor:
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By Hill Ellsworth
His atty.

UNITED STATES PATENT OFFICE.

GEORGE W. RODEBAUGH, OF JACKSON, MICHIGAN.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **203,196**, dated April 30, 1878; application filed January 11, 1878.

To all whom it may concern:

Be it known that I, GEORGE W. RODEBAUGH, of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Farm-Gates; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation; Fig. 2 a transverse section through the gate-posts in the plane of the line *xx*, Fig. 1; and Fig. 3 is a perspective view of the grooved roller, partly in section.

Similar letters of reference indicate the same parts in the several figures.

My invention has for its object to improve the construction and operation of farm-gates, whereby they are rendered cheap, durable, and effective; and to this end the invention consists, first, in a supporting device of novel construction, that enables the gate to operate in any vertical plane within a horizontal sweep of ninety degrees; and, secondly, in combining with said supporting device inclined ways arranged upon the gate, all substantially as I will now proceed to describe.

In the drawings, A represents the front gate-post, B the road-bed, C D the rear gate-post, and G the gate, provided with projecting points *g*, that enter holes in the front gate-post to hold the gate securely when closed.

A bolt, E, provided with a ball-head, is secured in a diagonal position to the main portion of the rear gate-post, so that the ball-head will lie in the path of the gate while the latter is sliding directly forward and backward, as shown in the drawings. Upon this ball-head is mounted a grooved pulley, F, composed of two plates riveted together, with a central socket which fits upon the ball, forming a ball-and-socket joint therewith.

The wheel may be cast with the ball in it, if preferred, by coring the ball into the wheel in a manner that will be understood by metal founders without further description. The gate is hung upon this wheel by constructing and applying two slats, *g' g'*, so that they will embrace the wheel between them, the upper slat running in the groove at the upper side,

and the lower one in the groove at the lower side of the wheel. The proximate edges of the slats *g' g'* are inclined upward from front to rear, so as to raise the gate when the latter is slid back. A combined stay and stop, H, is applied to the gate, for the double purpose of stiffening and strengthening it, and of stopping its backward movement at the point where it will be balanced upon the wheel.

The rear gate-post C D is composed of two parts, C and D, connected at the upper end, if necessary, at their lower end by a cross-piece or cross-pieces I, to hold them rigidly in the proper position with relation to each other. The faces *c c'* of the part C are at right angles to each other, and the faces *d d'* of the part D are also at right angles to each other, the plane of the face *c'* being parallel to that of the face *d*, but at a distance from it sufficient to accommodate the gate, and the plane of the face *c* being parallel to that of the face *d'*, but also at a distance from it sufficient to admit the gate to slide freely in the intervening space.

In opening the gate, the latter is to be slid directly back upon the wheel F as a support, until it is equally balanced on said wheel, the stop H indicating when that point is reached, and preventing the gate from sliding too far. In thus sliding back it rises upon the inclines *g' g'*, so as to permit it to swing freely, and to clear ice, snow, and other obstructions. It is then swung outward till arrested by the faces *c' d*, which operate as stops to limit its movement in that direction, and to save the bolt E from being wrenched and bent or broken.

The way is now open for the passage of vehicles through the gateway. In closing the gate it is swung back till its movement is arrested by the faces *c d'*, which operate as stops in that direction, and then it is slid forward till the projections *g* enter the holes in the front post.

The whole construction is exceedingly simple, cheap, and durable, and efficient in practice, and the gate can be operated with the greatest convenience and ease by a slight touch or push. The post is not liable to get out of position, because there is no lateral strain upon it; but should it accidentally be-

come unsettled or out of perpendicular, it in no wise affects the easy and perfect working of the gate.

I claim as my invention—

1. In combination with a gate a bolt, E, having a ball-head, and a grooved wheel, F, socketed in the ball-head, so as to form a ball-and-socket joint therewith, substantially as described.

2. A bolt, E, having a ball-head, and a

grooved wheel, F, socketed in the ball-head, so as to form a ball-and-socket joint therewith, in combination with a gate having one or more inclined ways, *g' g'*, substantially as described.

GEOR. W. RODEBAUGH.

Witnesses:

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