(No Model.)

J. D. FOX.

GATE.

No. 330,575. Patented Nov. 17, 1885.

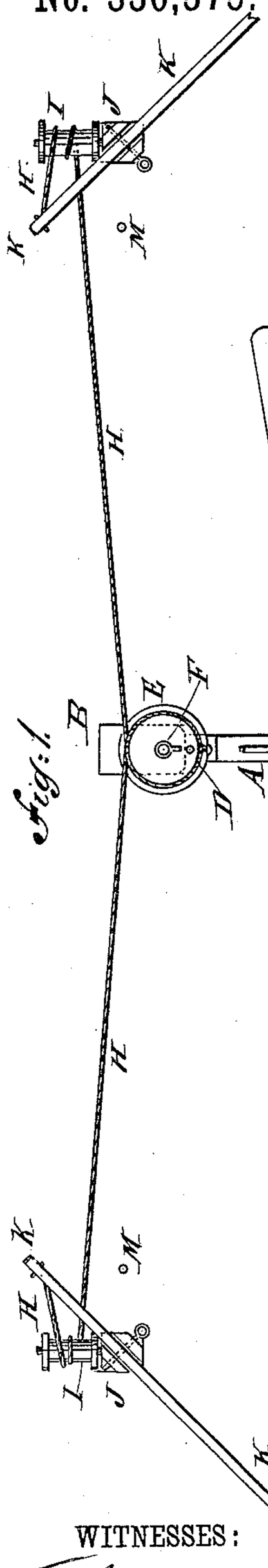

Fig: 1.

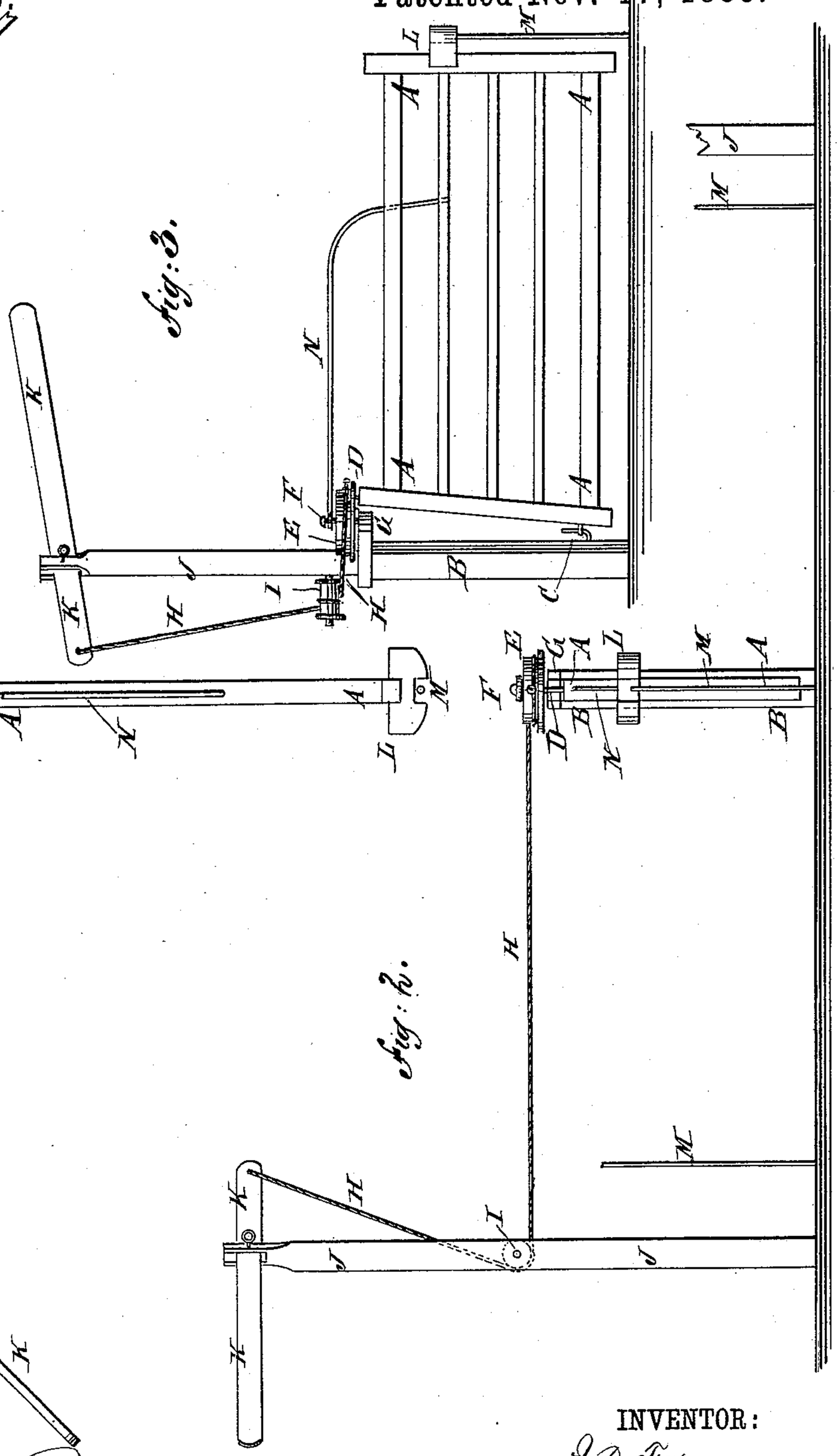

Fig: 2.

Fig: 3.

WITNESSES:

Chas. Nida

C. Sedgwick

INVENTOR:

J. D. Fox

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSHUA D. FOX, OF FRANKFORT, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 330,575, dated November 17, 1885.

Application filed June 18, 1885. Serial No. 169,127. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA D. FOX, of Frankfort, in the county of Clinton and State of Indiana, have invented a new and useful Improvement in Gates, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of one of my improved gates, part being broken away. Fig. 2 is an end elevation of the same, part being broken away. Fig. 3 is a side elevation of the same, one of the side posts being omitted.

The object of this invention is to provide gates constructed in such a manner that they can be readily opened and closed by persons in vehicles and on horseback, and shall be at the same time simple in construction and inexpensive in manufacture.

The invention consists in the construction and combination of various parts of the gate, as will be hereinafter fully described, and then pointed out in the claim.

A represents the gate, which is made a little longer at the bottom than at the top, to give the rear end bar a forward inclination. The lower part of the rear end bar of the gate A is connected with the lower part of the rear or hinge post, B, by an ordinary hinge, C. To the upper end of the rear end bar of the gate A is attached a pivot, D, which enters and works in a hole in the outer part of the horizontal pulley E. In the center of the pulley E is formed a hole to receive a pivot, F, attached to the upper end of the rear post, B, or to a forwardly-projecting arm, G, attached to the said upper end. To the pulley E are attached the ends of two ropes, H, or the center of a single long rope. From the pulley E the ropes H extend along the side of the roadway in opposite directions, are passed once or twice around rollers I, pivoted to the outer sides of the side posts, J, and are passed up and attached to the outer ends of the short arms of the levers K, which are pivoted to the upper ends of the said side posts, J, in diagonal positions, so that their long arms will incline toward the roadway and from the gate A, as shown in Fig. 1, and will thus be in a convenient position to be reached and operated by a person in a vehicle, whether passing toward or from the gate. To the upper part of the front end bar of the gate A is attached the center of a horizontal catch, L, which has a recess in its center to receive and engage with the spring-latches M, and has the forward sides of its ends rounded off or beveled, as shown in Fig. 1, so that either end of the said catch will push back and pass the said spring-latches M, from whichever direction the said catch may come in contact with them, the elasticity of the latches causing them to spring into the recess of the said catch and fasten the gate. The lower ends of the spring-latches M may be attached to posts or to blocks or other support set in the ground, and they are so constructed as to spring transversely with the roadway or in a direction parallel with the said roadway. This latter elasticity allows the gate when swung shut, and after the catch L has engaged with one of the said spring-latches M, to continue its movement a little against the elasticity of the said spring-latch, to prevent the gate from being stopped with a jar. These spring-latches are simply vertical rods free at their upper ends and secured in the ground at their lower ends. To the upper forward part of the gate A is attached the forward end of a spring, N, which is bent to the rearward, and has at its rear end an eye formed in it to receive the pivot F. With this construction, when either of the levers K is operated the upper rear corner of the gate is carried to one side and to the rearward in the arc of a circle. The first effect of this movement is to raise the forward end of the gate sufficiently to free the catch L from the latch M, when the weight of the gate swings it open or shut, as the case may be. With this construction, also, the lateral and rearward movement of the upper rear corner of the gate, in case a wind or other cause prevents the gate from being moved by its own weight, puts the spring N under tension, so that the weight of the gate will be supplemented by the elasticity of the said spring, and the proper movement of the gate will be assured.

I am aware that gates have been inclined downward at their rear ends and provided with ropes and pulley mechanism for raising the gate and disengaging the fastenings at the

front thereof; also, that the front of the gate has had a notched beveled catch for engaging a spring-rod on the gate-post, and a cord, lever, and push-pin for forcing the spring out of the notch in the catch, and I do not claim such constructions as of my invention.

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

The combination, with the gate A, having a downward inclined rear end and a pivot, D, the rear post, B, to which the lower end of the gate is hinged, as at C, the horizontal pulley E on top of the post, having a pin, F, and connected to the pivot D, the side posts, J, having levers K and rollers I, and the rope H, connected to the levers and to the pulley E and passed around the rollers, of the spring N, secured to the gate at one end and connected to the pin F at the other end, substantialy as set forth.

J. D. FOX.

Witnesses:
URBAN C. MCKINSEY,
ALFRED C. ELLMORE.