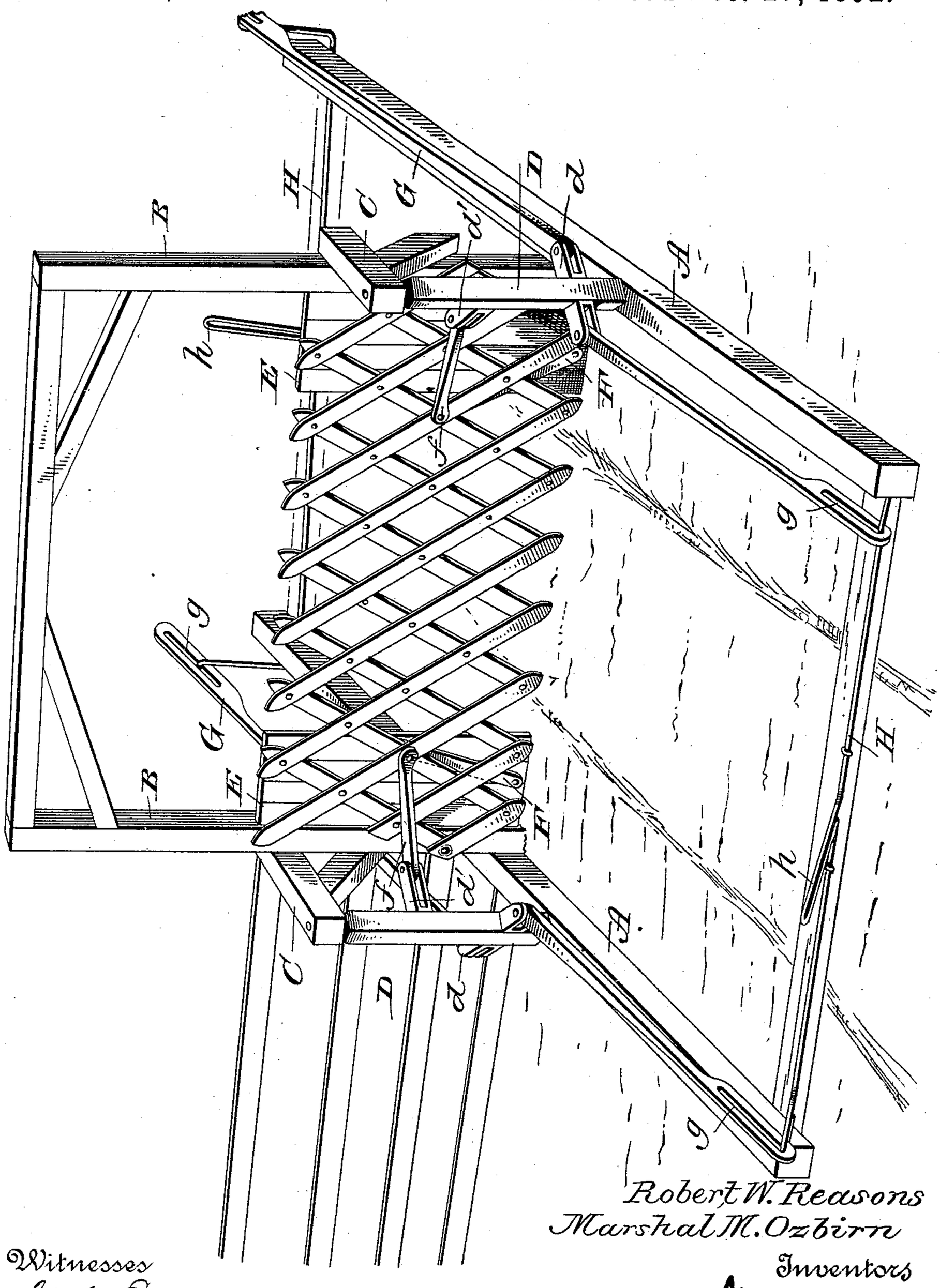
(No Model.)

R. W. REASONS & M. M. OZBIRN.

GATE.

No. 488,834. Patented Dec. 27, 1892.



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GATE.

SPECIFICATION forming part of Letters Patent No. 488,834, dated December 27, 1892.

Application filed June 30, 1892. Serial No. 438,625. (No model.)

To all whom it may concern:

Be it known that we, ROBERT W. REASONS and MARSHAL M. OZBIRN, citizens of the United States of America, residing at Campbell, in the county of Dunklin and State of Missouri, have invented certain new and useful Improvements in Gates; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which forms a part of this specification.

This invention relates to improvements in gates.

The object of the invention is to provide an expansible gate, which will be opened on the approach of a vehicle by the axle of said vehicle striking against a projecting arm on a crank-shaft, and closed by operating a similar crank shaft on the opposite side of the gate; said crank shafts being connected to turning posts which are connected to the sections of the gate; and the invention consists in the construction and combination of the parts, as will be hereinafter fully set forth and particularly pointed out in the claims.

The accompanying drawing, forming part of this specification: is a perspective view of a gate constructed in accordance with our invention.

A A designate parallel beams or sills to which are rigidly secured uprights B B carrying the gate sections. To these uprights are secured outwardly projecting arms C C which form bearings for the upper ends of turning posts D D, the lower ends of which bear upon the sills, and each turning post is provided with a cross-bar *d* and an arm *d'* projecting at right angles to said cross-bar. Each upright B carries a short section of fence E to which near the lower end is pivoted a lever F, said lever being also pivoted to the central part of the gate section attached to the upright.

The levers F F which are pivoted at their lower ends to the fence sections are also pivotally secured to the gate sections to serve as braces and supports for said gate sections when they are either opened or closed.

The gate sections are made up of bars pivoted to each other on the principle of the lazy-tongs, so that they can be operated to expand and contract. On the opposite side of each gate section from where the levers F are pivoted is attached to the same pivot a rod *f*, which is connected at its other end to the arm *d'* which projects from the turning-post, so that when the turning post is operated as hereinafter described the sections will be opened or closed.

G G designate rods which are pivoted at their inner ends to the cross-bar *d*, the outer ends of said rods being provided with slots *g* through which pass the crank portions of the shaft H, said shaft being pivoted between the sills A A and upon a cross-piece as shown. Each crank-shaft is provided centrally with an upwardly projecting arm *h* which inclines toward the gate when the sections are contracted to open the gateway and in the opposite direction when the gateway is closed; these arms being of sufficient height to be operated by the axle of a vehicle striking the same. It will be noted that by providing the slots in the ends of the rods G when a crank shaft is operated on one side of the gate the rods G G on the opposite side will slide upon the crank portions of the shaft and leave the arm *h* thereof in substantially an upright position.

In operation, when the gate is closed the projecting arms *h* of the crank-shafts will be inclined away from the gate and toward an approaching vehicle, and when the vehicle reaches one of the arms the axle thereof will strike against said arm and rock the shaft toward the gate which will push upon the rods G G to turn the posts D D and draw upon the gate sections through the connecting rods *f f*, so as to fold the gate sections and open the roadway. After the vehicle passes through and beyond the gate it will operate the opposite arm *h* and crank shaft to draw upon the rods G G connected thereto and turn the posts D D to expand the gate sections by pushing upon the connecting rods *f f* so as to close the gateway; the operation of each crank-shaft returning the arm *h* of the opposite crank-shaft to substantially a vertical position.

Having thus described our invention we do not wish to be limited to the exact arrangement of the parts as shown in the drawing, as

the sills and uprights may be dispensed with and the operating parts supported in any suitable manner.

We claim:

1. In a gate, the combination of the expansible sections pivoted to supporting posts and to levers F F, the lower ends of said levers being pivotally maintained in place; rods connecting the gate sections and levers to crank-arms carried by turning posts, said posts also having projecting cross-bars *d;* and rods secured to said cross-bars and provided with slotted ends which engage with crank-arms, substantially as shown, whereby when one of the crank-arms is rocked both sections of the gate will be expanded or contracted.

2. In an expansible gate, the combination of the gate sections pivoted to supports or posts, rods or levers F pivoted at their upper ends to the gate sections and at their lower ends to supports located between the posts, turning posts D D having projecting arms, and rods connecting said arms to the gate sections and to rock shafts, substantially as shown, and for the purpose set forth.

3. In an expansible gate, the combination of a gate section pivoted to a support and provided on one side with a lever F which is pivoted thereto and to a support, a connecting rod *f* connecting the gate section with an arm carried by a turning post, a cross-bar *d* secured to the post, rods G G pivoted to said cross-bar on opposite sides of the turning post and provided with slotted ends, rock shafts having crank portions located in said slots, and extensions *h* on said rock shafts, for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

his
ROBERT W. × REASONS.
mark
MARSHAL M. OZBIRN.

Witnesses:
J. M. BETTS,
J. T. HALL.