

J. A. Treat,
Automatic Gate,

N^o 21,785-

Patented Oct. 12, 1858.

Fig. 1.

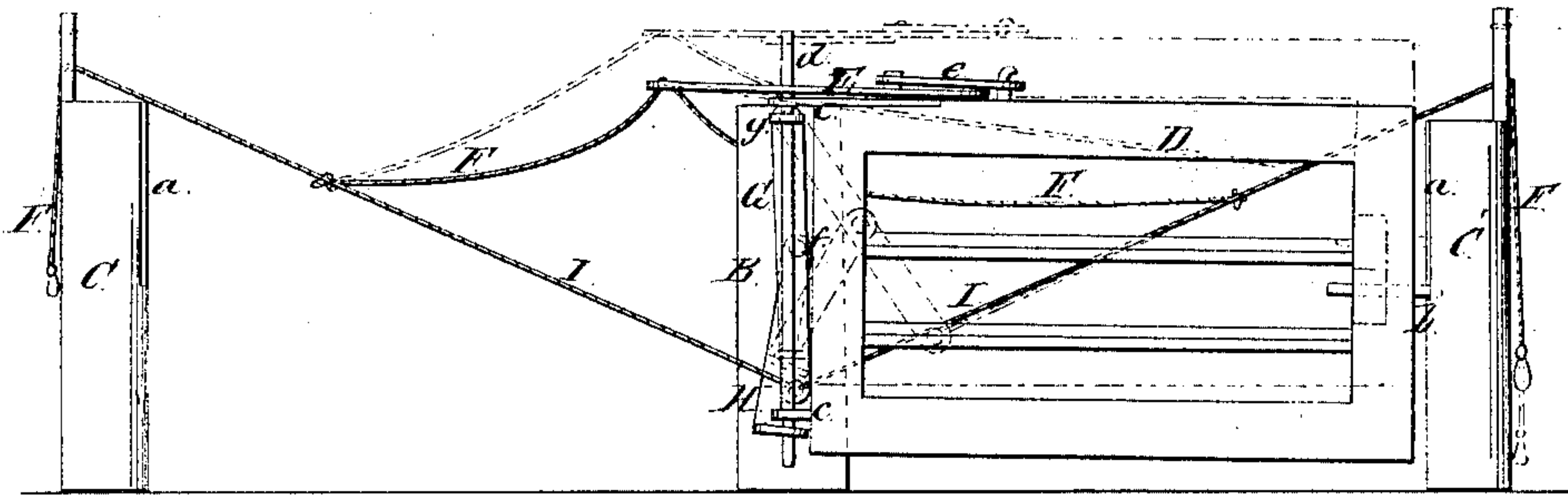


Fig. 2.

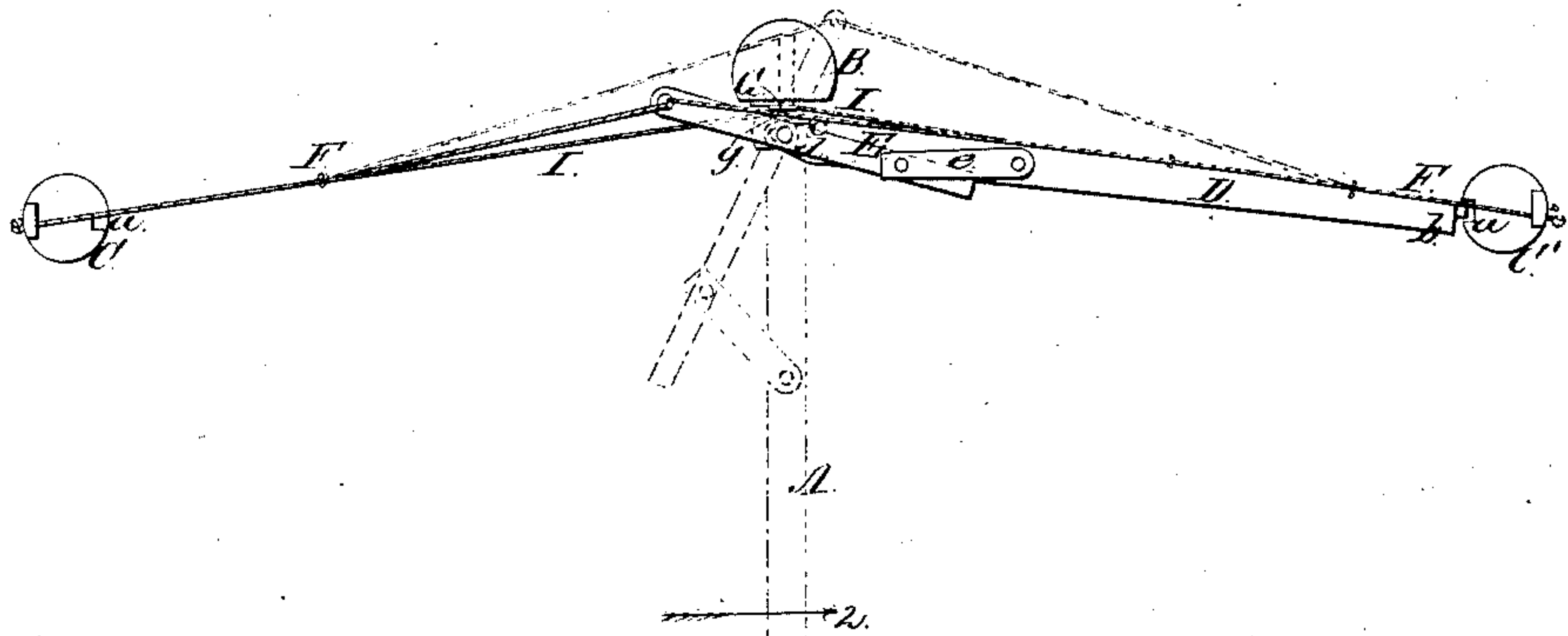
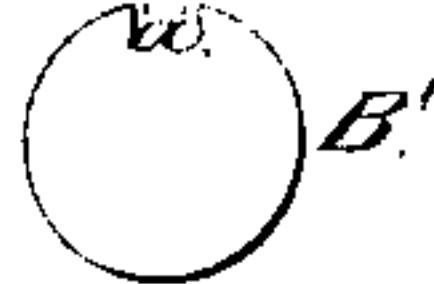


Fig. 3.



UNITED STATES PATENT OFFICE.

JOSEPH A. TREAT, OF TALLMADGE, OHIO.

FARM-GATE.

Specification of Letters Patent No. 21,785, dated October 12, 1858.

To all whom it may concern:

Be it known that I, JOSEPH A. TREAT, of Tallmadge, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Gates; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a front or face view of a gate with my invention applied to it, the gate being open and seen in the direction indicated by the arrow 1, see Fig. 2. Fig. 2, is a plan or top view of ditto.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improvement in that class of gates which are designed to be readily opened and closed by persons from a vehicle or on horse back.

The invention consists in the employment or use of levers connected with chains or cords, arranged and applied to the gate in a peculiar manner as hereinafter described, whereby the gate, by actuating or pulling a single chain or cord at one side may be first raised and then unlatched and opened, the gate being raised and closed by actuating a chain or cord at the opposite side.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a carriage way and B, B', are gate posts placed at opposite sides of the carriage way, B, being the post to which the gate is hung, and B', the post to which the gate is latched or fastened when in a closed state as indicated in red, Fig. 2.

C, C', are two posts which are placed at opposite sides of the post B, at the same side of the carriage way. These posts serve to retain the gate in an open state while vehicles are passing through. The posts B', C, C', are precisely similar, each one having a vertical slot *a*, made in its upper end to receive the latch *b*, of the gate D, said latch being simply a sliding spring bolt, the spring having a tendency to keep the bolt thrown outward to its fullest extent.

The gate D, is of usual construction and it has two eye bolts *c*, *c*, attached to one end, one at its upper and the other at its lower part, said bolts being fitted on a vertical rod or bar *d*, which is secured to the post B, in such a manner that it may be a short distance out from the post and paral-

lel with it. The gate D, consequently is allowed to swing freely on the rod *d*.

E, represents a lever through the center of which the rod *d*, passes. The lever E, is allowed to turn freely on the rod *d*, and its inner end is connected by a link *e*, with the top rail of the gate. The outer end of the lever E, has two chains or cords F, F, attached which pass through holes in plates on the upper parts of the posts C, C', one through each plate.

G, H, represent two levers which are connected together by a joint as shown at *f*. The upper end of the lever G, is fitted on a bolt or arm *g*, which serves as a hold fast to the upper part of the rod *d*, and the lower end of the lever H, is bent at right angles to its vertical portion and has a hole made through it through which the rod *d*, passes. The lower eye bolt *c*, of the gate D, rests on the horizontal part of lever H, and to the lower end of lever G, two chains or cords I, are attached, said cords or chains being connected to the chains or cords F, F, as shown at *h*.

The operation is as follows: Suppose for instance the gate to be in an open state as shown in Figs. 1 and 2, and a person in a vehicle after passing the gate in the direction indicated by the arrow 2, draws the chain or cord F, of the post C', the lower end of lever G is moved toward the post C', and consequently the lower lever H, will be elevated and also the gate D. This raising of the gate without the actuating of the lever E, is due to the manner in which the chains I, are attached to the chains F, to wit, the chains I, being somewhat shorter than the portions of chains F, between the points of junction *h*, and the end of lever E. When the gate D, reaches a certain height the lever E, begins to move and the latch end of the gate D, is thrown curvilinearly upward so as to throw the bolt *b*, out of the recess *a*, in post C', the gate turning on the lower eye bolt *c*, for a fulcrum, the upper eye bolt *c*, having an aperture of sufficient dimensions to admit of this tilting movement of the gate, when the gate is free from post C', it is closed and secured to post B', by the pull on lever E, assisted by the inclining of the gate from a vertical position, the latter effect being due to the capacity of the upper eye bolt *c*, and the "pull" exerted on the gate through the medium of the lever F, and link *e*.

By this improvement the gate may be raised free from all obstructions that may be within the compass of its sweep so that it may be readily opened and closed. The difficulty attending the sagging of gates will be overcome and the gate may be made to extend down closely to the ground so as to keep out from inclosures all small animals—as the usual precaution to obviate the difficulty attending sagging, viz., the large space between the bottom of the gate and the ground, is unnecessary.

I am aware that various plans have been devised for opening and closing gates from vehicles,—levers have been used and applied in various forms, but I am not aware that a system of levers combined and arranged as herein shown have been employed for ele-

vating, unlatching, and opening and closing gates by the pulling of a single chain or cord, I do not claim therefore separately or in the abstract any of the parts herein shown and described; but,

I do claim as new and desire to secure by Letters Patent—

The levers G, H, in combination with the lever E, and link e, said parts being applied to the gate, arranged and connected by the chains I, I, F, F, substantially as shown and described to operate as and for the purpose set forth.

JOSEPH A. TREAT.

Witnesses:

L. C. WALTON,
M. V. WALTON.