

N. B. HELM.

Improvement in Gates.

No. 126,958.

Patented May 21, 1872.

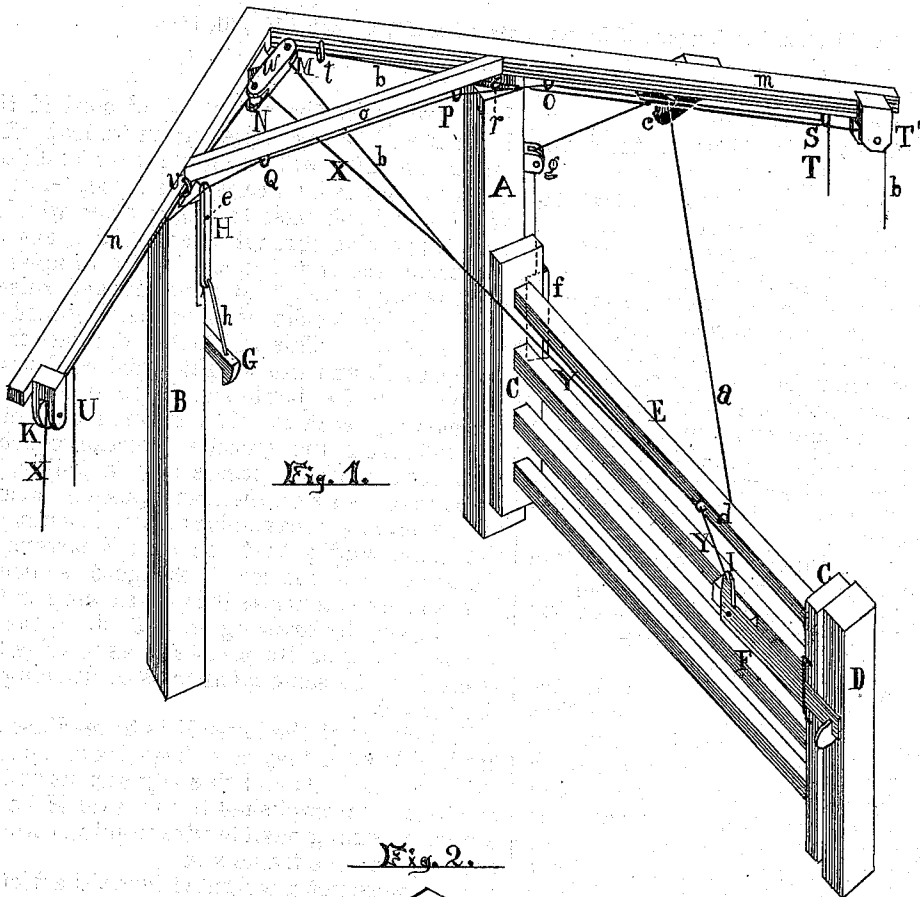


Fig. 1.

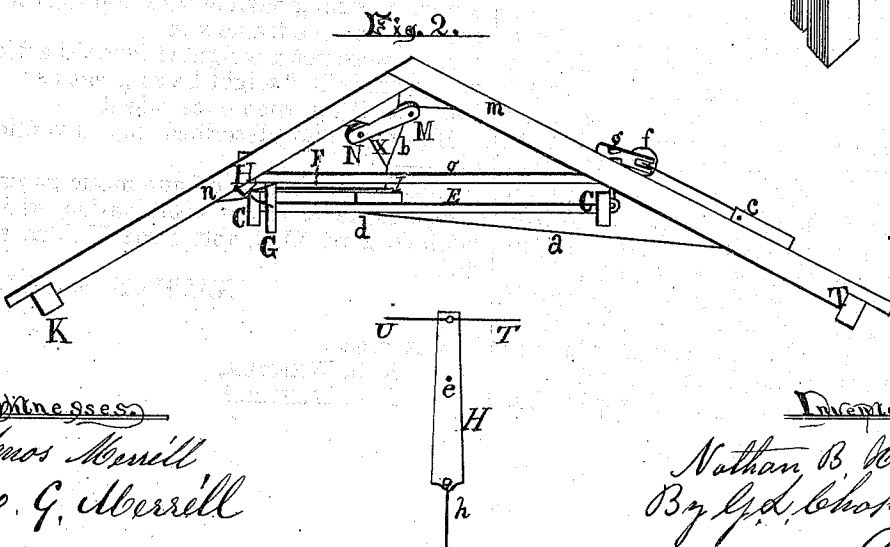


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

NATHAN B. HELM, OF ALDEN, ILLINOIS.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. 126,958, dated May 21, 1872.

SPECIFICATION.

I, NATHAN B. HELM, of Alden, in the county of McHenry and State of Illinois, have invented a new and useful Improvement in Gates, of which the following is a specification:

The present invention relates to an improvement in that class of gates which is arranged to be opened and closed by persons in carriages and on horseback without alighting; and the particular improvement consists in the novel construction of a weighted lever as it is arranged and combined with the operating-cords, the arrangement being such that said lever will readjust the cords and allow the latch G to assume a position to lock the gate open, as the whole is hereinafter fully described and shown.

In the drawing, Figure 1 is a perspective representation of my improved gate and attachments; Fig. 2, a plan or top view of the frame-work and mechanism for operating the gate.

A represents the hanging-posts; D, the jamb-posts; and C E, the gate, all of which are constructed in the ordinary manner, and, therefore, need no particular description. B represents a post, set nearly at right angles to the gate C E, and at such a distance from the hanging-post A as will correspond to the length of the gate, so that when the latter is open it will be fastened by a catch, G. On the tops of the posts A B is rigidly fastened an obtuse angular frame, *m n*, which is made in the form shown, that the cords, hereinafter described, may be supported in suitable positions to open and shut the gate C E. *a* represents the cord which closes the gate, and it is attached to the gate at *d*, and passes over the pulleys *g c* and is attached to a weight, *f*.

The cord for opening the gate on one side is shown at X, and it is attached to a cord, *y*, and is put over a pulley, N, through a loop or eye, *v*, and over a pulley, K, on one end of the frame-work *n*. This arrangement is such that

by drawing on the outer end of cord X the latch F will be first raised up in its loop, after which the gate will be swung open and fastened to post B by means of a latch, G, so as to let a vehicle pass through; after which a cord, T, passing through eyes S O P Q and an eye under the end of *n*, can be drawn upon so as to swing a weighted lever, H, and raise a latch, G, by means of a connecting-cord or rod, *h*, Fig. 1. This will loosen the gate from the post B, and the weight *f* and cord *a* will carry it to the jamb-post D, to which it is fastened by latch F. The means for opening the gate from the opposite direction consists of a cord, *b*, which passes over a pulley, T', through eyes *t r* on the frame-piece *m*, over a pulley, M, in a sheave-block, *w*, and fastens to the same cord *y* that the cord X fastens to. By drawing on the cord *b* the gate is opened in the same manner as it is by drawing on the cord X, and by drawing on a cord, U, the lever is swung on its pivot *e* so as to raise the latch G in the same manner as by drawing on the cord T.

The object of the lever H is to readjust the cords T U after they have been drawn upon to raise the latch G; and this adjustment will be the better accomplished if the lever H be operated by strong flexible wire running through the loops on the frame *n m*.

If H were not a weighted lever, the friction of the cords U T might be so great as to hold the latch G up when once raised.

Having thus described my invention, I claim—

In the construction of automatic gates, the weighted lever H, in combination with the latch G, gates C E, and cords U T, as specified.

NATHAN B. HELM.

Witnesses:

E. S. WEEDER,
J. A. DUFFIELD.