

W. W. ELLIOTT.  
Swings.

No. 212,912

Patented Mar. 4, 1879.

Fig. 1.

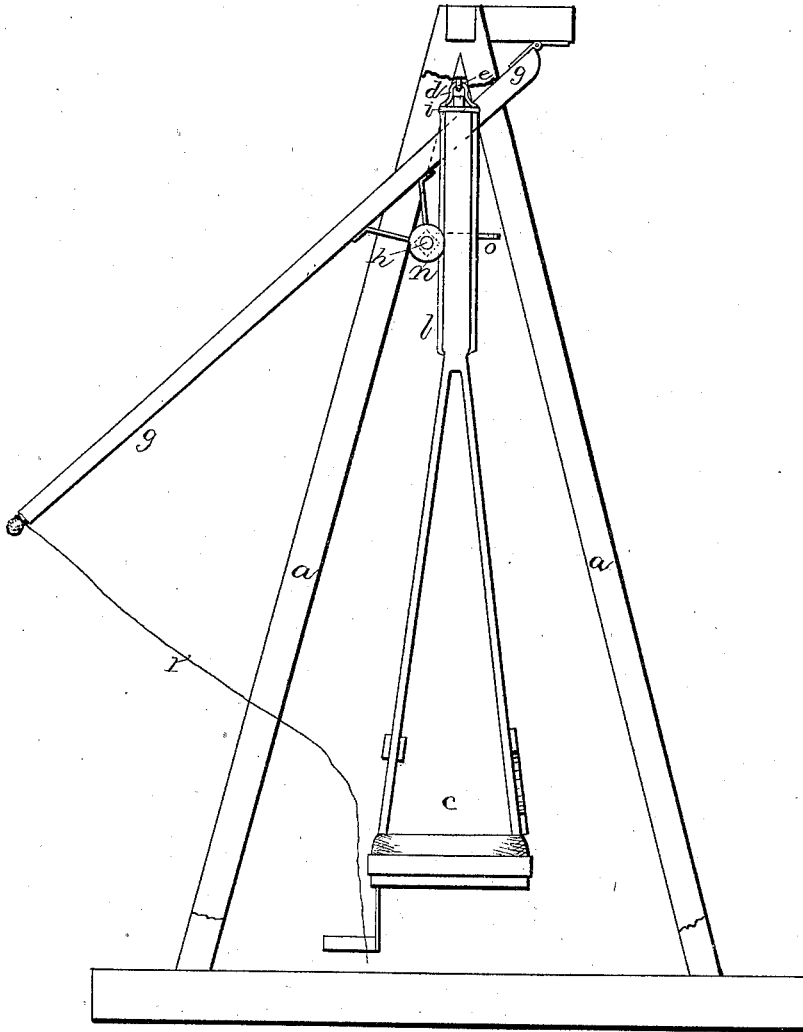
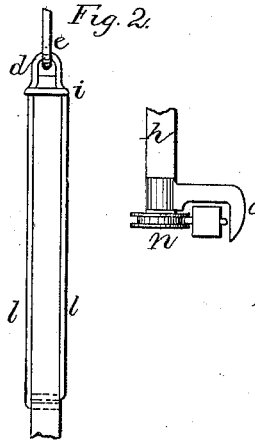


Fig. 2.



Witnesses:

J. W. Garner?  
W. S. D. Kaines?

Inventor:  
W. W. Elliott  
per  
F. A. Lehmann,  
Atty.

# UNITED STATES PATENT OFFICE

WILLIAM W. ELLIOTT, OF DENVER, COLORADO.

## IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. **212,912**, dated March 4, 1879; application filed January 17, 1879.

*To all whom it may concern:*

Be it known that I, WILLIAM W. ELLIOTT, of Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Swings; and I 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in swings; and it consists in the peculiar arrangement and construction of the lever by means of which the swing is moved back and forth, as will be more fully described hereinafter.

Figure 1 represents a side elevation of my invention, and Fig. 2 is a detail view of the same.

*a* represents a suitable frame-work, either of the construction here shown or any other that may be preferred, and in which the swing *c* is suspended. The loops *d* on top of the swing, and which catch over the hooks *e*, are formed from rods of suitable length, and which are bent double, so that their ends will extend down both sides of the two uprights of the swing. The ends of these rods are driven into the uprights and riveted, and over the tops of the uprights are passed the rings *i* for securing the uprights and rods rigidly together at this point.

Hinged or pivoted to the under side of the top beam of the frame or ceiling, and at some distance in the rear of the hooks *e*, is the lever *g*, by means of which the swing is moved back and forth. Secured to the under side of this lever, in any suitable manner, is the cross-bar

*h*, which has a grooved friction-roller, *n*, upon each end, which rollers press constantly against the swing and move up and down upon the guides formed by the rods *l*.

To the bar *h*, inside of the rollers, are secured the hooks *o*, which catch behind the uprights and prevent the lever from being separated from the swing. As both the hooks *o* and rollers *n* bear wholly upon the rods *l* the uprights are never injured by the friction and wear upon them.

Connected to the lower end of the lever *g* is a rope, *r*, which is used by the person in the swing to work the swing back and forth in the usual manner.

By using friction-rollers on the lever the swing is made to move with much greater ease, and by having the rollers on one side of the uprights and the hooks on the other the swing and lever are always connected together, so as to be ready for instant use.

Having thus described my invention, I claim—

1. The combination of the swing with the lever *g*, cross-bar *h*, friction-rollers *n*, and hooks *o*, substantially as described.

2. The rods *l*, secured to the uprights of the swing, so as to form both the loops *d* and guides for the rollers and hooks to work against, in combination with the rollers and hooks, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of January, 1879.

WILLIAM W. ELLIOTT.

Witnesses:

S. J. ANTHONY,  
J. C. EMERSON.