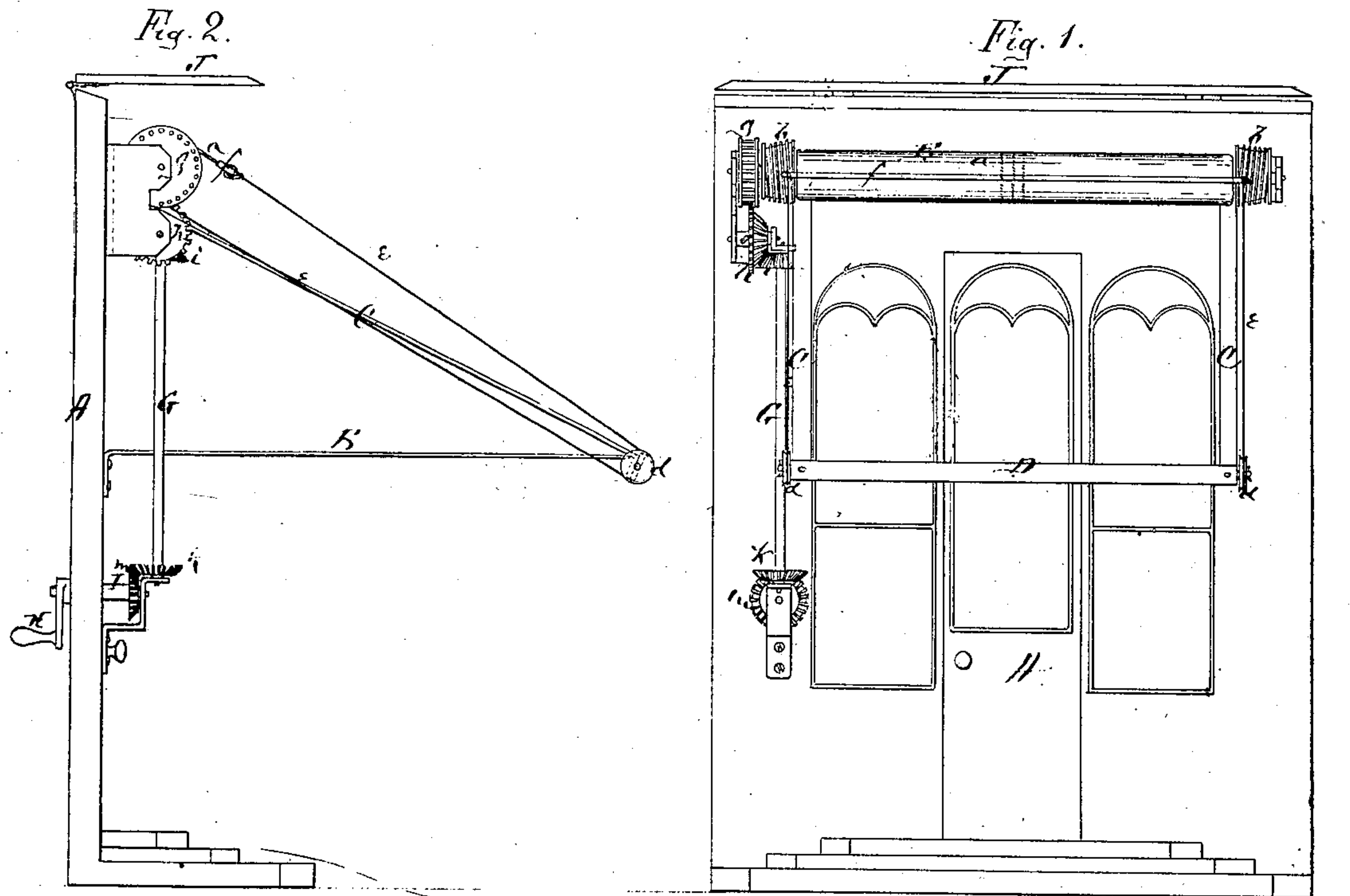


A. THALHOFER.

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PATENTED JUN 28 1870

*Improvement in Device for Operating Awnings.*



Witnesses:

*Chas Jacobs*  
*J. V. White*

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*Per*

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# United States Patent Office.

ANDREW THALHOFER, OF SOUTH BEND, INDIANA.

Letters Patent No. 104,900, dated June 28, 1870.

## IMPROVED DEVICE FOR OPERATING AWNINGS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ANDREW THALHOFER, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Devices for Operating Awnings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a "device for operating awnings," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a front view, and

Figure 2, a side view.

A represents the front of store, or other place where it is desired to have an awning.

On the outside of the house, or front A, is secured a frame, consisting of two horizontal braces, B B, inclined bars, C C, and connecting-bar, D, the braces and inclined bars meeting at their outer ends, where the connecting-bar is attached.

This frame is of the same width as it is desired to have the awning, and the bars C C having the same inclination it is desired to give to the awning.

At or immediately above the inner or upper ends of the inclined bars C C is placed a roller, E, in suitable bearings, upon which roller the awning *a* is rolled.

At each end of the roller E is formed a pulley, *b*, to which one end of a cord, *e*, is secured, said cord passing around a pulley, *d*, on the end of the connecting-bar D, and its other end secured to the end of a rod or bar, *f*, which is sewed into or otherwise affixed to the outer end of the awning *a*.

The pulleys *b b* being stationary on the ends of the roller E, it will readily be seen that, when said roller

is rotated in one direction, the cords *e e* will be wound up on the pulleys *b b*, and the awning unrolled until it covers the frame B C D. When, on the contrary, the roller is rotated in the opposite direction, the cords are unwound and the awning rolled up.

The mechanism for turning the roller E is as follows

Upon one end of the roller E, outside of the pulley *b*, is a cog-wheel, *g*, which gears with another cog-wheel, *h*.

This wheel is, on one side, provided with miter-gears, which mesh with a miter-wheel, *i*, upon the upper end of an upright shaft, G, having suitable bearings on the outside of the front A.

On the lower end of the shaft G is a similar miter-wheel, *k*, which gears with another wheel, *m*, on the outer end of a horizontal shaft, I.

This shaft passes through the front A, and is, inside of the same, provided with a crank, H, for operating the same.

It will now readily be seen that, by the use of this crank from the inside of the house, the awning on the outside can be let down or hoisted up at will.

Above roller E is hinged a board or shelf, J, for the purpose of protecting the awning from rain when it is rolled up.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the frame B C D, roller E, with awning *a* and pulleys *b b*, cords *e e*, pulleys *d d*, shafts G I, wheels *g, h, i, k*, and *m*, crank H, and board J, all constructed and arranged to operate substantially in the manner and for the purposes herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

ANDREW THALHOFER.

Witnesses:

GEO. P. PFLEGER, Sr.,  
W. G. GEORGE.