

B. F. Cloud,

Curtain Fixture.

No. 89,917.

Fig. 1.

Patented May 11, 1869.

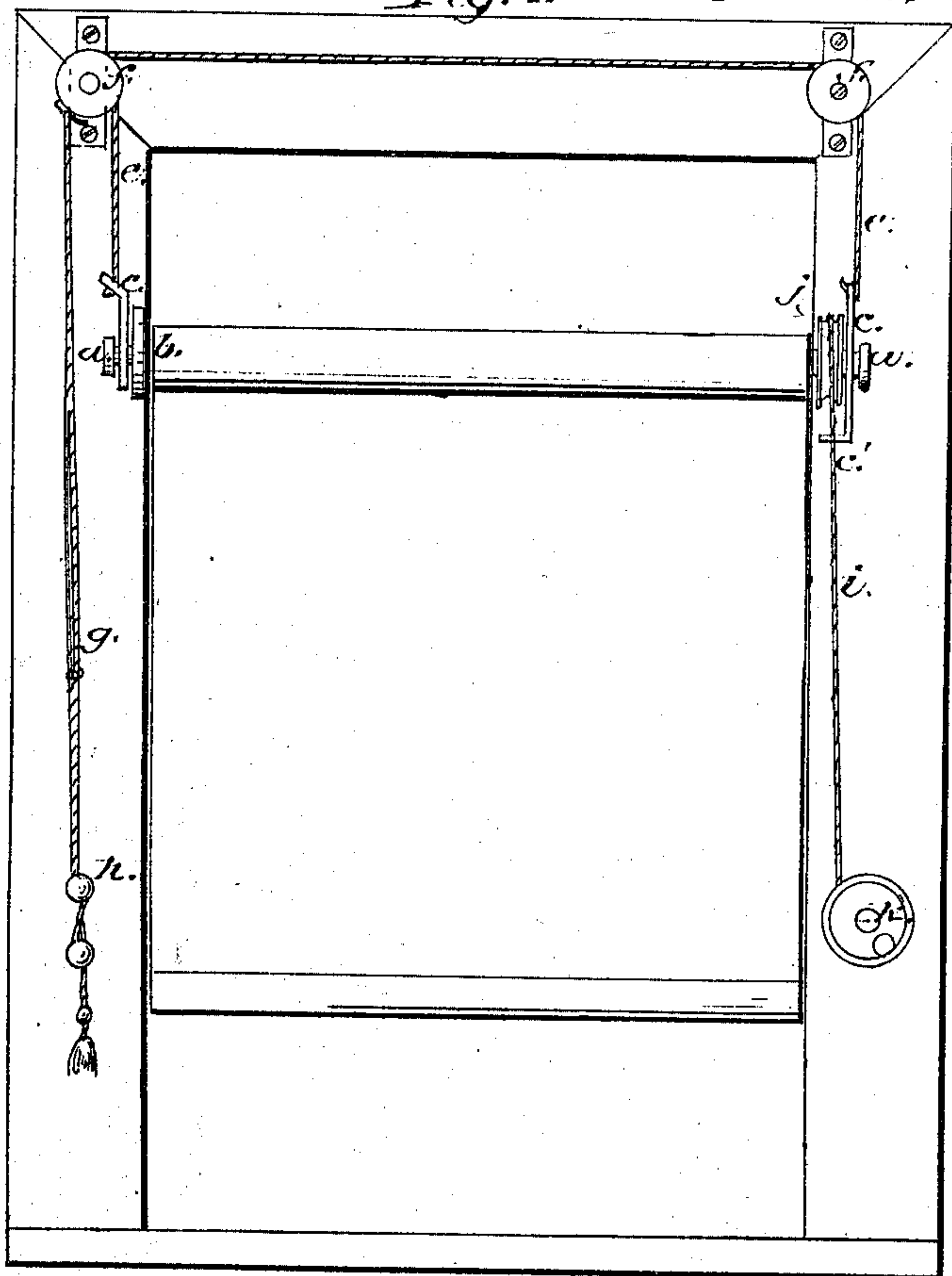


Fig. 2.

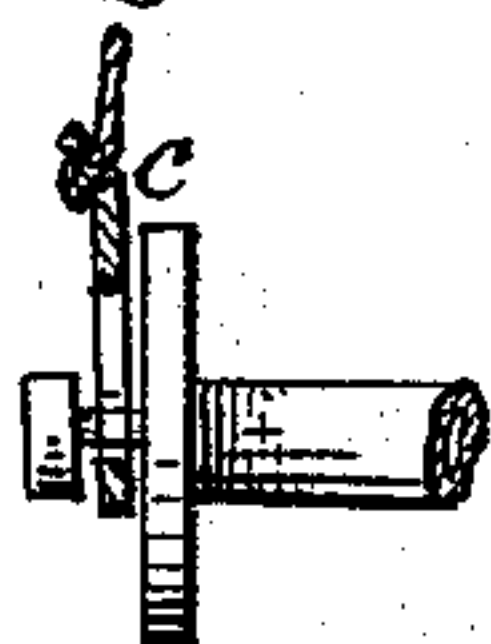


Fig. 3.

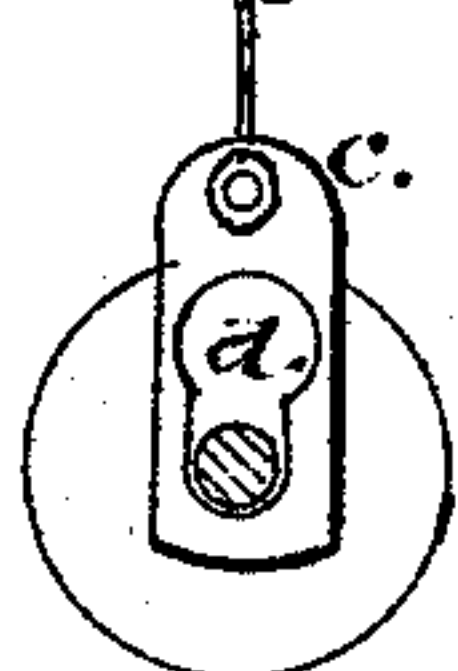


Fig. 4.

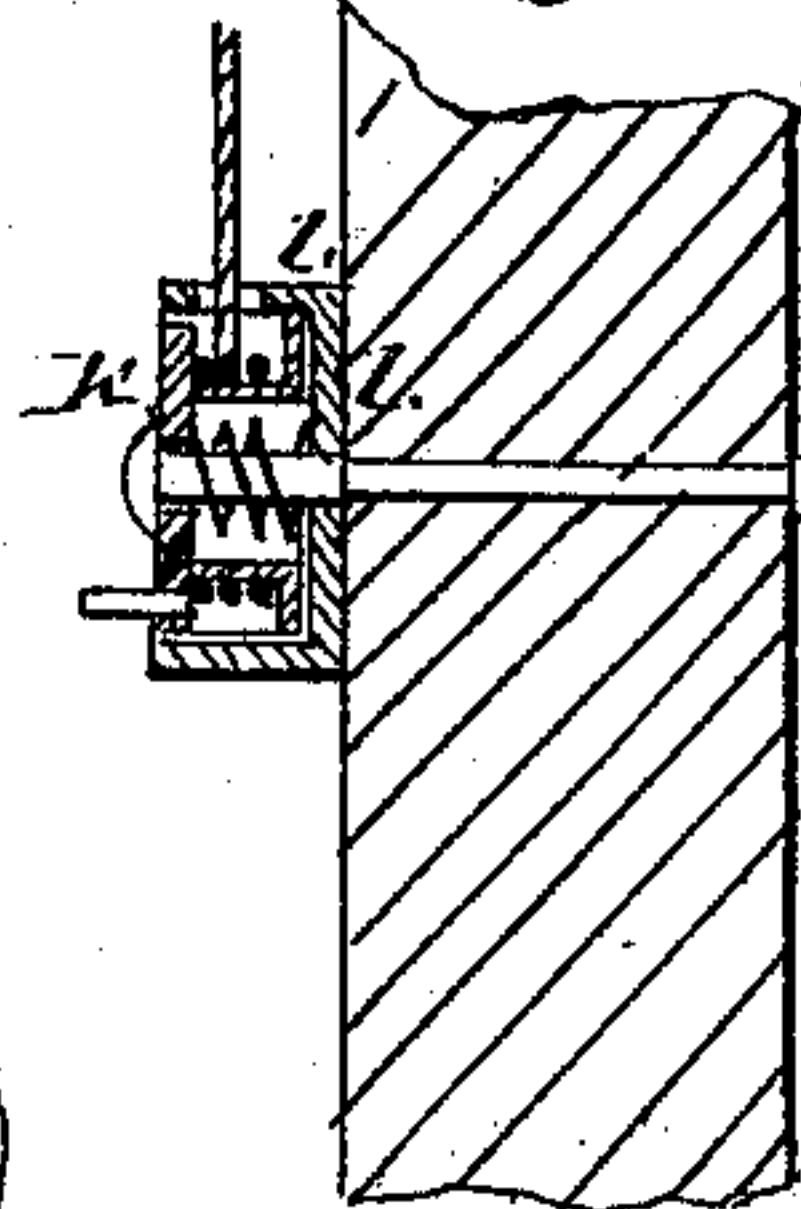
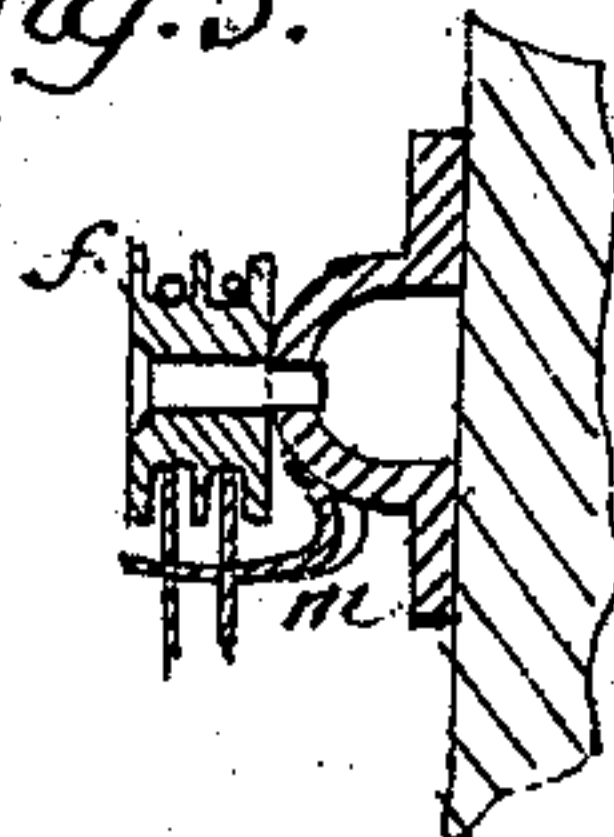


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

B. F. CLOUD, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED CURTAIN-FIXTURE.

Specification forming part of Letters Patent No. 89,917, dated May 11, 1869.

To all whom it may concern:

Be it known that I, BENJAMIN F. CLOUD, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Curtain-Fixtures; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in curtain-fixtures; and it consists in the combination of parts, as will be hereinafter more fully described.

Figure 1 represents a front elevation of a window curtain and fixture arranged according to my improvement, and Figs. 2 to 5 represent detail views of the same.

Similar letters of reference indicate corresponding parts.

The journals *a* of the roller *b* are suspended in hangers *c*, the bearing-holes of which are enlarged above the bearing part sufficiently to admit the passage of the flanged ends of the journals, as shown at *d*. These hangers are suspended by cords *e*, passing over rollers *f*, suspended upon journals projecting from the casing, which said cords are united in one at *g*, and secured upon studs *h* in a manner common for securing curtain-cords. To the

hanger *c*, for the end of the roller having the usual winding-pulley, I connect a guide-bracket, *c'*, having an eye through which the winding-cord passes for the purpose of steadying the suspended roller; and for operating the latter I arrange a single cord, *i*, thereon, so as to wind on the pulley *j* when the curtain unwinds. The other end of the said cord I engage with a friction-wheel, *k*, working on a stud and projecting from the casing, a casing, *l*, being arranged around the said wheel for protection. I propose to employ india-rubber springs, spiral springs, or other suitable means for producing the friction, as may be preferred.

Guide-brackets *m* may be provided under the rollers *f* to prevent the cords from working off the said pulleys.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the flanged journals *a*, hangers *c*, cords *e*, rollers *f*, pulley *j*, friction-wheel *k*, casing *l*, and the friction-spring, as herein described, for the purpose specified.

The above specification of my invention signed by me this 23d day of February, 1869.
B. F. CLOUD.

Witnesses:

C. E. LARZELERE,
EDWD. H. CLOUD,
WM. LARZELERE.