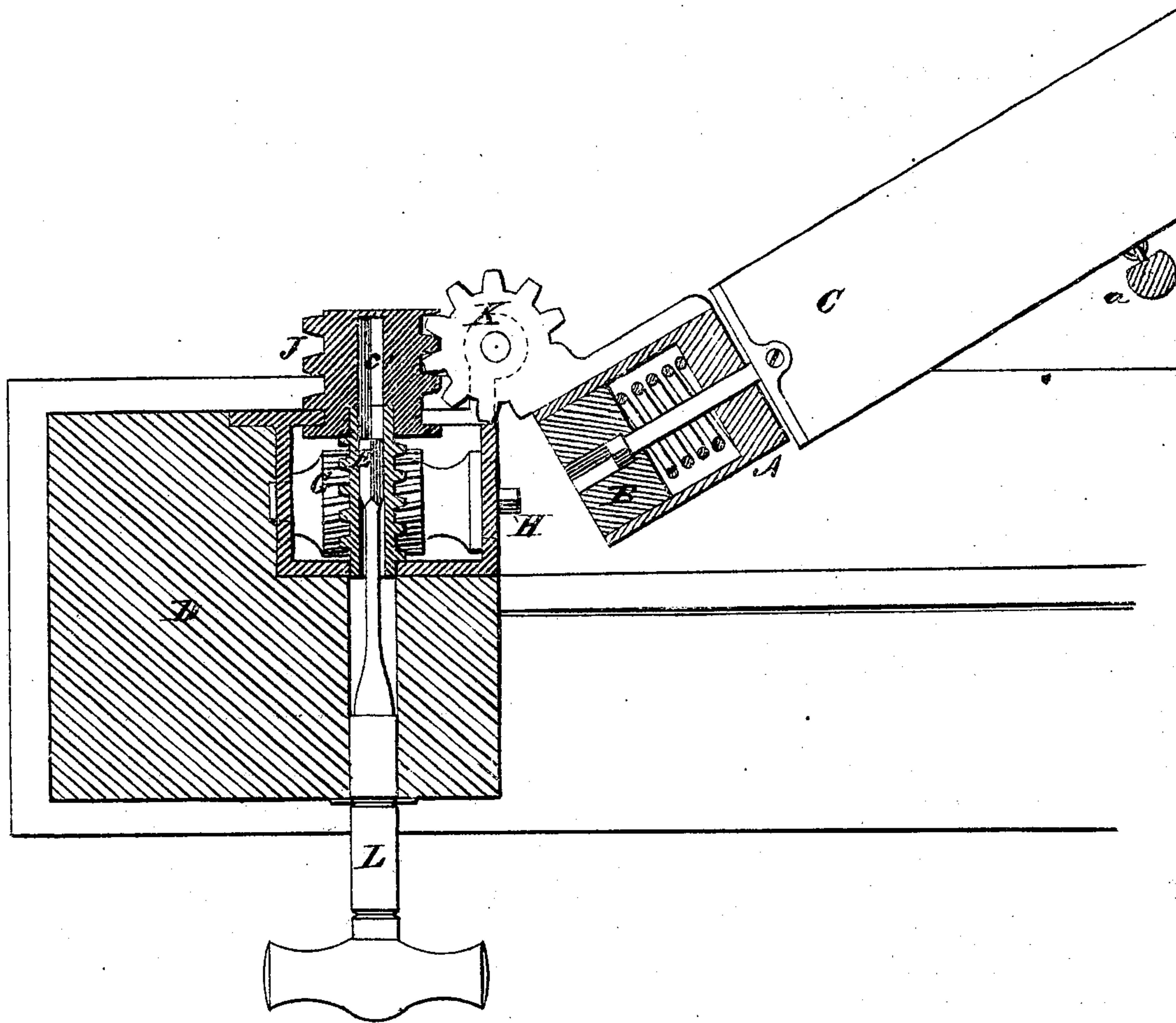


L. GATHMANN.

Improvement in Combined Blind Openers and Slat Regulators.

No. 124,050.

Patented Feb. 27, 1872.



Witnesses.

Harry King
P. T. Dodge

Inventor.

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UNITED STATES PATENT OFFICE.

LOUIS GATHMANN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN COMBINED BLIND-OPENERS AND SLAT-REGULATORS.

Specification forming part of Letters Patent No. 124,050, dated February 27, 1872.

To all whom it may concern:

Be it known that I, LOUIS GATHMANN, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Blind-Opener and Slat-Regulator, of which the following is a specification, reference being had to the accompanying drawing.

My invention consists in a novel combination and arrangement of devices for opening and closing a window-blind and adjusting the slats thereof from within the room while the window remains closed, as hereinafter described and claimed.

Figure 1 is a horizontal section through a window-blind and frame having my improvements applied thereto.

In applying my improvements I set into the rear edge of the sash A a round socket, B, and secure the same to the journal of one of the slats C, as shown, so that when the socket is turned it turns the slat also. The slats are all connected by a bar, *a*, in the usual manner, so that when the one is turned it moves the others. In the window-frame D I mount a worm, E, and a pinion, G, operated thereby, and the pinion I provide with a square-ended journal, H, protruding out through the face of the window-frame so as to enter the socket B when the blind is closed. Outside of, but in line with, the worm E I mount another and independent worm, J, and on the hinge of the blind I secure a pinion, K, into which the second worm engages. Through the center of the two worms I make a straight square hole, *c*, and in the window-frame I mount a spindle, L, in such a manner that it can both turn and move endwise and with its inner end inserted in the hole *c* of the worms. The extreme inner

end of the spindle I make of an enlarged square form to fit the hole *c*, and its outer end, which protrudes outside of the frame, I provide with a knob or handle, as shown. Upon drawing the spindle forward its square end is brought into the worm E, so that when the spindle is turned it rotates the worm and the pinion, and the square journal of the latter, if the blind is shut, turns the socket B and adjusts the slats of the blind. When the spindle is shoved inward its square end is carried into the outer worm J so that the spindle will turn the same and swing the blind open or shut, according to the direction in which the spindle is turned.

In this manner I produce a very cheap and simple means whereby the blind may be opened and closed and its slats adjusted without opening the window, a very great object in the winter season and in windows where the sash is not balanced.

I am aware that the worm and pinion for opening and closing the blind have long been in use, and therefore I do not claim the same broadly; neither do I claim by themselves the devices for adjusting the slats, as I have an application now pending therefor; but

What I claim is—

The combined blind-opener and slat-adjuster, consisting of the pinion K and worm J with the worm E and the pinion G, having its journal H arranged to engage in the socket B and the sliding spindle L, all arranged to operate substantially as herein described.

LOUIS GATHMANN.

Witnesses:

J. C. HANSEN,
BART. S. DE FOREST.