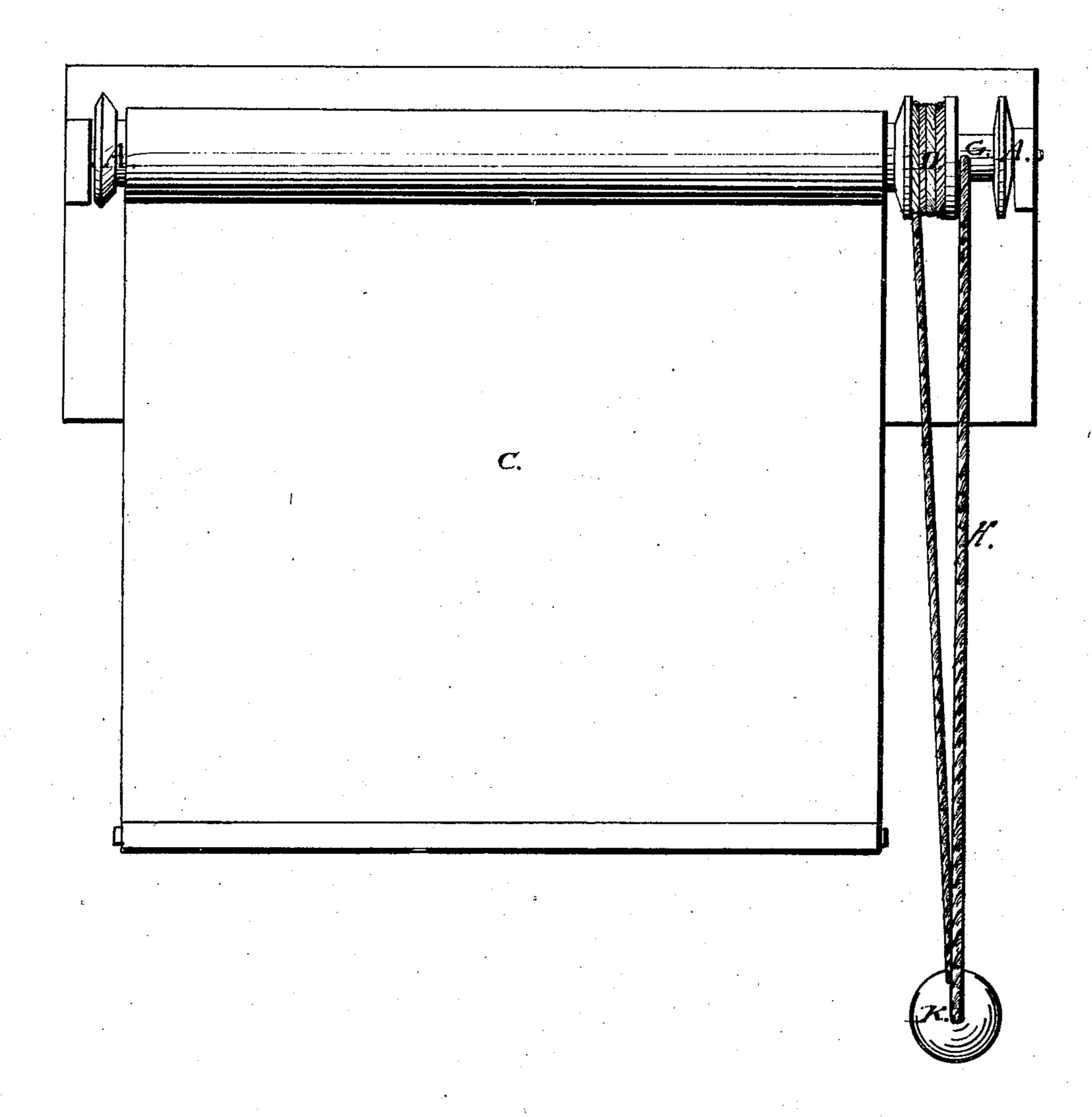
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Witnesses: Affilmani, C. Lierb, Inventor: M. G. Imbach June Mexicola Muason attorneys

UNITED STATES PATENT OFFICE.

M. G. IMBACH, OF BETHLEHEM, PENNSYLVANIA.

IMPROVED CURTAIN-FIXTURE.

Specification forming part of Letters Patent No. 98,384, dated December 28, 1869; antedated December 18, 1869.

To all whom it may concern:

Be it known that I, M. G. IMBACH, of Bethlehem, in the county of Northampton, and in the State of Pennsylvania, have invented certain new and useful Improvements in Curtain-Fixtures; and 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, making a part of this specification.

The nature of my invention consists in the construction of a curtain-roller which will raise and lower the curtain without the use of springs or friction-rollers of any kind.

The accompanying drawing represents a side elevation of my invention.

Letter H represents the cord by which the curtain C is raised and lowered.

Letter K is a weight, which may be made of any desirable form or size, as shown in the drawing, or provided with a roller to prevent

injury to the cord.

Letter A represents the roller, with pulleys of different diameters formed on its end. To each of these pulleys D and G is secured one end of the cord H in such a manner as to act upon their circumferences at diametrically-opposite sides, so that while the cord is winding around one pulley, in either raising or lowering the curtain, it is unwinding from the other.

The curtain C is so attached to the roller A that when it is unrolled the one end of cord H will wind up on the larger pulley, and the other end unwind from the smaller one.

The pulleys D and G being of unequal diameter, and the ends of the cord H operating in opposite directions, the weight of the curtain is at all times, whether it is high up or low down, evenly balanced, and its tendency down-

ward overcome by the weight K and the difference in the circumference of the two pulleys, for it will be readily understood that the weight K, causing the cord H to operate in opposite directions on the two pulleys, would, supposing there were no curtain attached, cause the roller to turn in the direction the force is applied to the larger pulley; but there being a curtain attached to the roller in the manner above described, the weight of the curtain balances or overcomes this effect in favor of the larger pulley and the increase of weight in the curtain as it descends overcomes or balances the increase in the circumference of the large pulley, as the cord is being wound around the same. Hence, this fixture requires no springs, catches, or any other device to hold the curtain at any desired height, and forms one of the simplest and cheapest fixtures yet used, and from its very simplicity can never get out of order.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-

ent, is—

1. The roller A, having two pulleys of unequal diameter formed upon one end, substantially as and for the purposes herein set forth.

2. The roller A, provided with pulleys D and G of unequal diameter, in combination with one or more cords, H, curtain C, weight K, or its equivalent, when used as shown, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of May, 1869.

M. G. IMBACH. [L. s.]

Witnesses:

WM. W. SELFRIDGE, PETER BENDER.