No. 842,251. PATENTED JAN. 29, 1907.

C. SASSE.

ROLLER BLIND SHUTTER FOR PHOTOGRAPHIC CAMERAS.

APPLICATION FILED OCT. 25, 1905.

Fig. 1

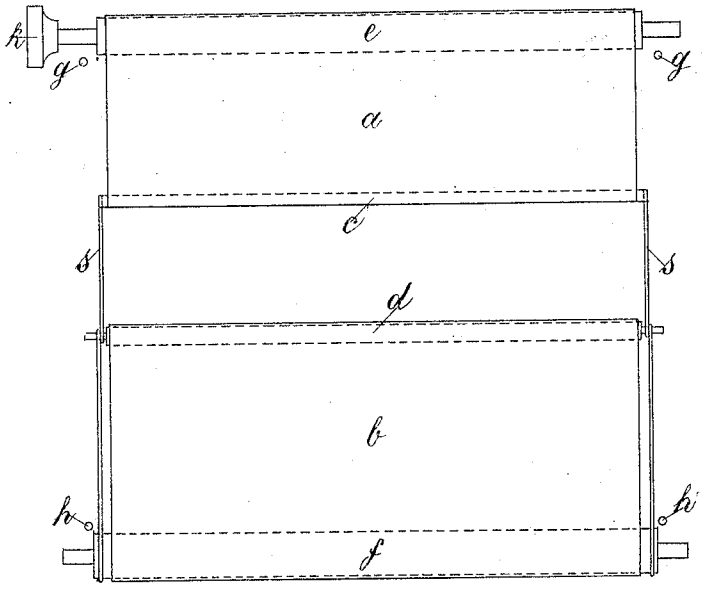


Fig. 2

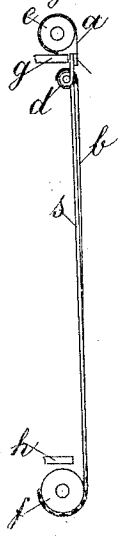
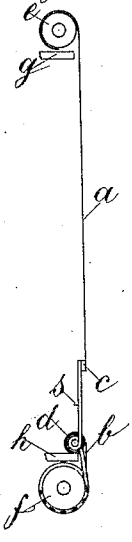


Fig. 3



Witnesses:

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CARL SASSE, OF DRESDEN, GERMANY.

ROLLER-BLIND SHUTTER FOR PHOTOGRAPHIC CAMERAS.

No. 842,251. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed October 25, 1905. Serial No. 284,339.

To all whom it may concern:

Be it known that I, CARL SASSE, a subject of the Emperor of Germany, and a resident of Dresden, Germany, have invented new and useful Improvements in Roller-Blind Shutters for Photographic Cameras, of which the following is a specification.

The improved roller-blind shutter belongs to that class of such shutters in which one portion of the blind is adjustably mounted on the tapes or cords of the other portion of the blind.

In the accompanying drawings, Figure 1 is a front elevation of the improved roller-blind shutter; and Figs. 2 and 3 are side views thereof, showing it in different positions.

According to the invention the improved shutter consists of a resetting fabric or blind *a*, fast onto the resetting-roller *e*, which serves to draw the blind up. Another piece of fabric *b*, constituting a motor-blind, is secured to the spring motor-roller *f* and has secured to its upper end a revoluble exposure-slot-regulating roller *d*. To the lower end of the upper resetting-blind *a* is secured a bar *c*, carrying at its extremities the tapes or cords *s*, whose other ends are secured to the motor-roller *f* and wind or unwind with the motor-blind *b* on the said roller *f*, while, moreover, they are given a single turn around the projecting ends of the roller *d*. The tapes or cords wind and unwind upon the exposure-slot-regulating roller in the opposite direction from that in which the motor-blind winds and unwinds thereon. The distance between the bar *c* and roller *d* forms the exposure-slot. By turning the knob *k* for setting the shutter both parts *a* and *b* of the shutter are moved upward, with the exposure-slot-regulating roller *d* and bar *c* close together. (See Fig. 2.)

The upper part or resetting-blind *a* is consequently rolled onto the resetting-roller *e*, while the lower part or motor-blind *b* by reason of the projecting ends of the regulating-roller *d* meeting with and being held by stops *g* becomes rolled on the regulating-roller *d*. The rotation of roller *d* is caused by the continued upward travel of the tapes or cords *s*. Thus the more the upper or resetting blind is rolled up the larger will become the exposure-slot.

Any known device may be adopted for releasing the shutter in order to make the exposure. When the shutter is released, the exposure-slot-regulating roller *d* strikes against the stops *h* at the lower end, as indicated in Fig. 3, the tension of the spring or motor roller *f* causing the motor-blind *b* to unroll from the exposure-slot-regulating roller *d* and fully roll upon the motor-roller *f*, while at the same time causing the tapes or cords *s* to do likewise. This results in the bar *c* and regulating-roller *d* being brought close together, which position they maintain at the commencement of the resetting of the shutter. The stops *h* are preferably yielding to cushion the regulating-roller, as may be done by making them of spring metal.

I claim—

1. A roller-blind shutter for photographic cameras with a variable exposure-slot comprising, in combination, a motor-roller and a motor-blind secured thereto; a resetting-roller and a resetting-blind secured thereto, the exposure-slot being formed between the adjacent exposure edges of the two blinds; a bar secured to the exposure edge of the resetting-blind; an exposure-slot-regulating roller secured to the exposure edge of the motor-blind upon which said blind may wind and unwind; tapes or cords secured to said bar and winding and unwinding upon said exposure-slot-regulating roller oppositely to the way the motor-blind winds and unwinds threon; and stops to engage the exposure-slot-regulating roller and stop its travel, both following the exposing and in resetting; whereby the rotation of the resetting-roller after the onward travel of the exposure-slot-regulating roller has been stopped rotates the exposure-slot-regulating roller, thereby winding the motor-blind thereon and increasing the size of the exposure-slot.

2. A roller-blind shutter for photographic cameras with a variable exposure-slot comprising, in combination, a motor-roller and a motor-blind secured thereto; a resetting-roller and a resetting-blind secured thereto, the exposure-slot being formed between the adjacent exposure edges of the two blinds; an exposure-slot-regulating roller secured to the exposure edge of the motor-blind upon which said blind may wind and unwind; tapes or cords secured to said resetting-blind and winding and unwinding upon said exposure-slot-regulating roller oppositely to the way the motor-blind winds and unwinds thereon; and stops to engage the exposure-slot-regulating roller and stop its travel, both following the exposing and in resetting; whereby the rotation of the resetting-roller

after the onward travel of the exposure-slot-regulating roller has been stopped rotates the exposure-slot-regulating roller, thereby winding the motor-blind thereon and increasing the size of the exposure-slot.

3. A roller-blind shutter for photographic cameras with a variable exposure-slot comprising, in combination, a motor-roller and a motor-blind secured thereto; a resetting-roller and a resetting-blind secured thereto, the exposure-slot being formed between the adjacent exposure edges of the two blinds; an exposure-slot-regulating roller secured to the motor-blind and upon which said blind may wind and unwind; tapes or cords secured to said resetting-blind and winding and unwinding upon said exposure-slot-regulating roller; and stops to engage the exposure-slot-regulating roller and stop its travel, both following the exposing and in resetting; whereby the rotation of the resetting-roller after the onward travel of the exposure-slot-regulating roller has been stopped rotates the exposure-slot-regulating roller, thereby winding the motor-blind thereon and increasing the size of the exposure-slot.

In testimony whereof I affix my signature in the presence of two witnesses.

CARL SASSE.

Witnesses:

CARL F. ROSENCRANTZ,

PAUL E. SCHILLING.