B. HANDFORTH.
Shade-Roller.

No. 208,811. **Patented Oct. 8, 1878.**

Fig. 1.

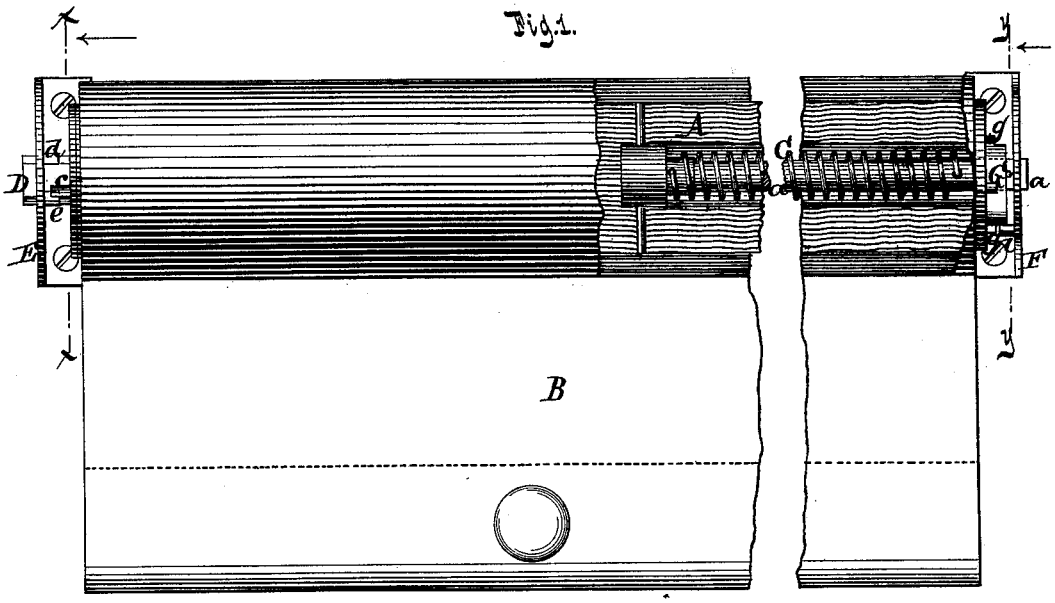


Fig. 2.

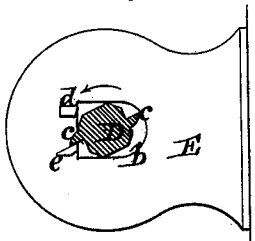


Fig. 5.

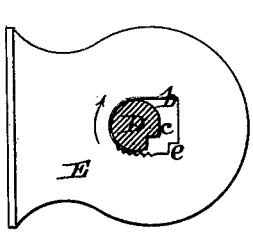


Fig. 3.

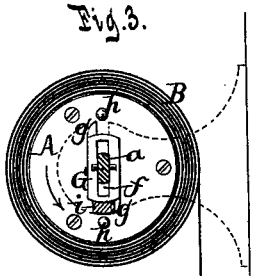
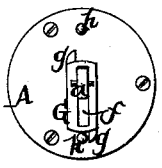


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

BENJAMIN HANDFORTH, OF HOBOKEN, NEW JERSEY.

IMPROVEMENT IN SHADE-ROLLERS.

Specification forming part of Letters Patent No. **208,811**, dated October 8, 1878; application filed September 11, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN HANDFORTH, of the city of Hoboken, county of Hudson, and State of New Jersey, have invented a new and useful Improvement in Shade-Rollers, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view of my roller, partly in section. Fig. 2 is a cross-section thereof in the plane *x x*, Fig. 1. Fig. 3 is a similar section thereof in the plane *y y*, Fig. 1. Fig. 4 is a view of the right-hand end of the roller.

Similar letters indicate corresponding parts.

My invention consists in combining with a spring-roller for shades or curtains a gudgeon having one or more radial tappets and a supporting-bracket, which is provided with an elongated slot to receive said gudgeon, and with an abutment, which serves to catch the tappet or tappets when the roller is caused to revolve slowly, and thus to retain the roller against the action of its spring, together with a device which serves to throw off the tappet or tappets, so that they clear the stop-abutment, when the roller is allowed to revolve rapidly.

In the drawing, the letter A designates a shade-roller, carrying a shade or curtain, B, and containing a spring, C, which has a tendency to revolve the same, the spring being wound on a rod, *a*. The roller A is provided at one end with a gudgeon, D, and is supported at such end by a bracket, E, which has an elongated slot, *b*, Fig. 2, in which said gudgeon is fitted. On the gudgeon D are formed or secured two (more or less) tappets, *c*, while, adjacent to the edge of the slot *b*, the bracket E is provided with two abutments, *d e*. When by the action of its spring C the roller A is allowed to assume a rapid revolving motion, the tappets *c* strike against the abutment *d*, and thereby the gudgeon D is forced back in the slot *b*, so that the tappets clear the abutment *e*, and hence the motion of the roller is not interrupted. When, however, the roller A is caused to revolve slowly, the gudgeon D returns to its normal position, and either of the tappets *c* (when more than one is used) come in contact with the abutment *e* after the tappets have been thrown off by the abutment *d*, whereby the motion of the roller is arrested, and it is held stationary.

At the end opposite to the gudgeon D the roller A is supported by a bracket, F, the outer portion of the rod *a* being received in this bracket. The said outer portion of the rod *a* is flattened, and on the same is arranged a gravitating-catch, G, consisting of a piece of metal or other material, in which is formed a slot, *f*, through which the rod *a* passes, and on the edges of which are formed two (more or less) teeth, *g*.

From the end of the roller A adjacent to the gravitating-catch G project two (more or less) spurs or stops, *h*. When the roller A is taken out of its supporting-brackets the gravitating-catch G moves outward by its own weight, and either of the teeth *g* of the catch come in contact with one of the stops *h*, as shown in Fig. 4, whereby a connection is made between the rod *a* and the roller, and the spring C is prevented from unwinding.

In order to permit of holding the gravitating-catch G clear of the stops *h* when the roller A is placed in its brackets, I provide the bracket F with an inwardly-projecting toe or abutment, *i*, which is adapted to catch beneath or over one end of the catch when the roller is placed in position, as shown in Figs. 1 and 3, and thereby the catch is held in the desired spot. This object, however, can also be accomplished in other ways—as, for instance, a pin may be passed through the catch G and into the end of the roller, so as to hold the catch in its inner position.

I do not claim the devices which I have described and illustrated in Figs. 3 and 4, as they are substantially old.

In some cases I dispense with the throw-off abutment *d*, and use only one abutment, which is adapted to stop the motion of the roller when the same revolves slowly, but allows said roller to turn when its motion is rapid.

In Fig. 5 I have shown a modification of the bracket E, as also of the gudgeon D, when only one abutment is used. In the example shown in said figure the abutment *e* is formed on the edge of the slot *b*, and the tappet *c* is produced by a recess in the gudgeon, the edge of the slot being, moreover, roughened, so that the same has a tendency to

throw the gudgeon in the direction of the abutment during the time the shade is being wound up.

In the modification shown in Fig. 5 the device for causing the gudgeon to rebound when the roller revolves rapidly consists simply in the vertical front edge of the slot immediately above the abutment *e*. The tappet *c*, striking said vertical edge of the slot when the roller revolves rapidly will cause the gudgeon to rebound and permit the tappet *c* to pass by the abutment.

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

1. The combination, in a spring-roller for shades or curtains, of a gudgeon, D, having one or more tappets, *c*, and a supporting-bracket having an abutment, *e*, for engaging one of the tappets when the roller revolves slowly, and a device against which one of the tappets strikes when the roller revolves rapidly, for causing the gudgeon to rebound, and thereby allowing the tappets to pass by the abutment *e*, substantially as and for the purpose described.

2. The combination, with a spring-roller for curtains or shades, of a gudgeon having one or more tappets and a supporting-bracket, which is provided with an elongated slot to receive said gudgeon, one abutment to catch and retain said roller against the action of its spring when the roller revolves slowly, and another abutment to throw off the tappet or tappets when the motion of the roller is rapid, substantially as described.

In testimony whereof I have hereunto set my hand and seal this 5th day of September, 1878.

BENJN. HANDFORTH. [L. S.]

Witnesses:
W. HAUFF,
W. C. HAUFF.