(No Model.)

A. MAUSER.

WINDOW CLEANER.

No. 597,067. Patented Jan. 11, 1898.

Fig. 1.

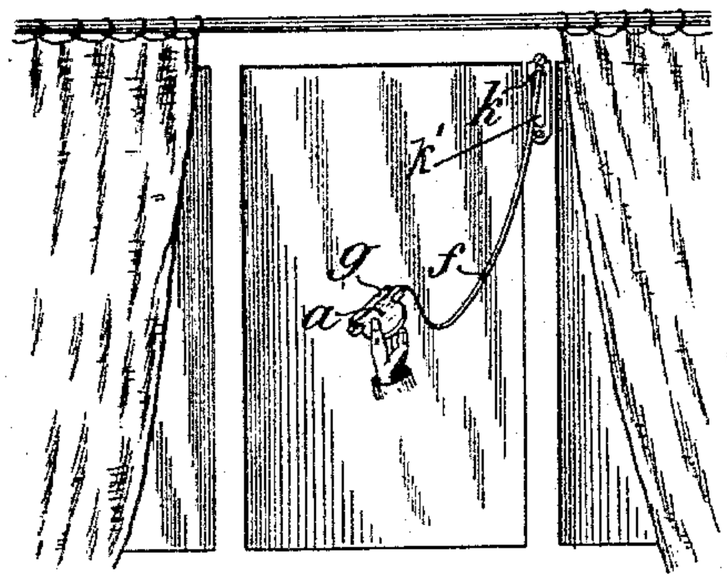


Fig. 2.

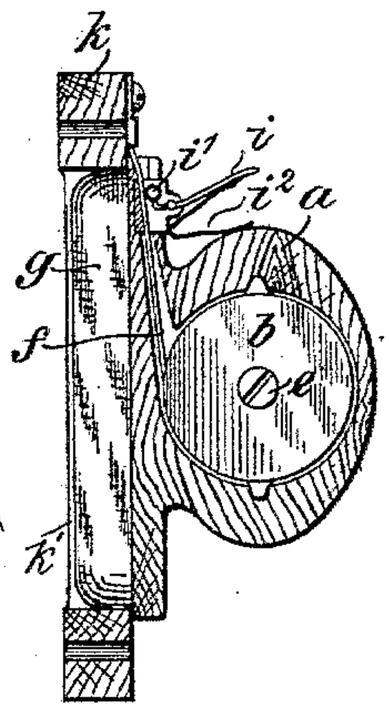


Fig. 3.

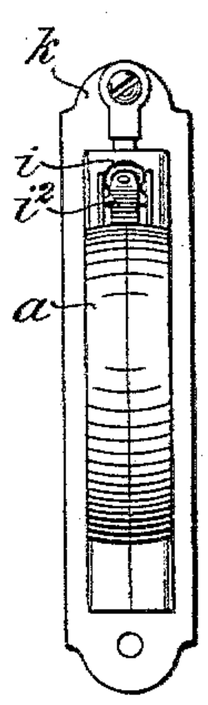


Fig. 6.

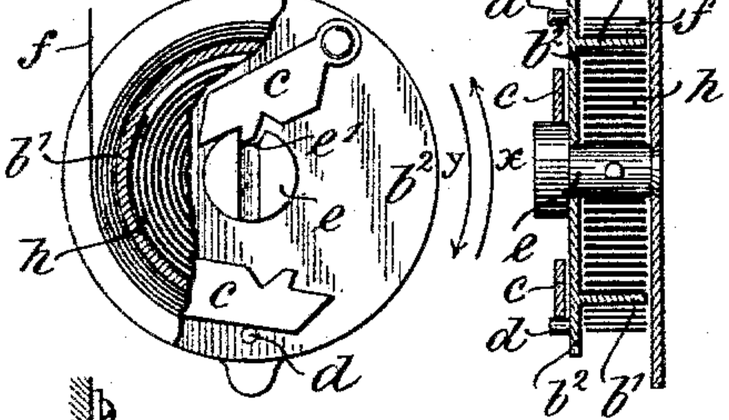


Fig. 7.

Fig. 4.

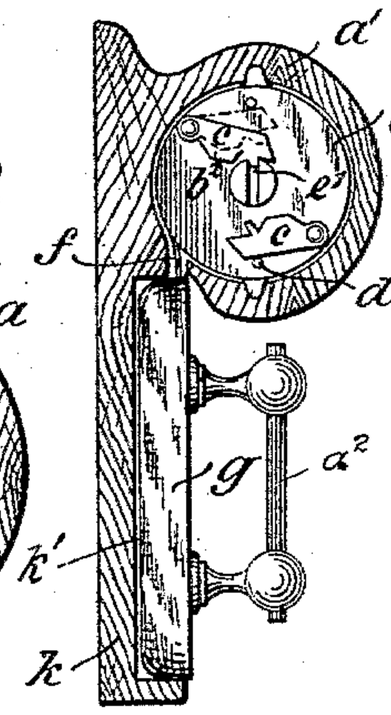


Fig. 5.

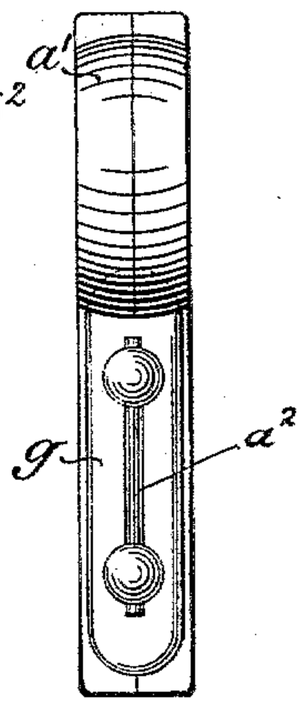


Fig. 8.

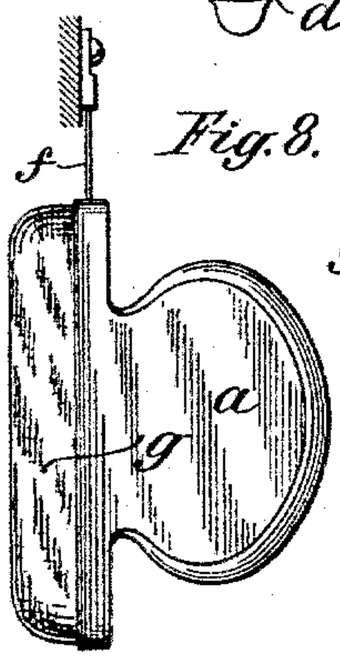
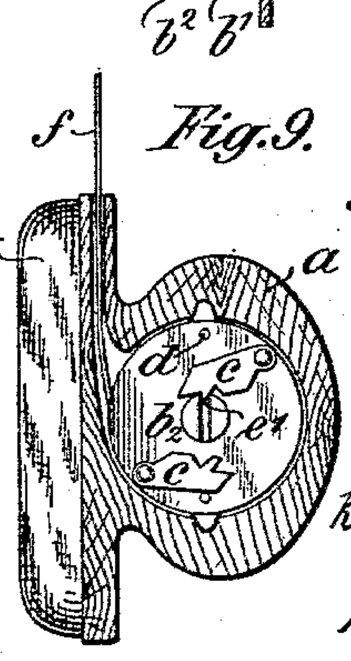


Fig. 9.



Witnesses:

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Berthold Scholz.

Inventor.

Alfons Mauser.

by Herbert W. Jenner.

Attorney.

UNITED STATES PATENT OFFICE.

ALFONS MAUSER, OF STUTTGART, GERMANY.

WINDOW-CLEANER.

SPECIFICATION forming part of Letters Patent No. 597,067, dated January 11, 1898.

Application filed August 23, 1897. Serial No. 649,197. (No model.)

To all whom it may concern:

Be it known that I, ALFONS MAUSER, engineer, a subject of the King of Würtemberg, residing at Stuttgart, Thübingerstrasse 95, in the Kingdom of Würtemberg and Empire of Germany, have invented certain new and useful Improvements in or Relating to Window-Cleaning Appliances; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object a window-cleaning appliance the rubber or cleaning pad of which is attached to a band, rope, or cord fixed in proximity to the window and wound on a spring-drum provided with a stop-catch, so that the pad on the one hand may be pulled down from its casing for the purpose of being used against the action of the spring-drum, while the drum after unwinding the desired length of the rope or cord may be prevented from turning backward by the automatic engagement of the catch or fastening device and, on the other hand, the pad after use and after the catch or locking device has been released may be again returned to its place, the cord or rope being wound up into the spring-casing.

In the accompanying drawings, Figures 1 to 9 show three forms of construction of this improved window-cleaner, which are intended more particularly for cleaning closed windows of carriages or coupés. Fig. 1 is a general view of the mode of attachment and handling of the improved window-cleaner. Figs. 2 and 3 are respectively a longitudinal section and a plan view of the window-cleaner. Figs. 4 and 5 are respectively a longitudinal section and plan view of a modified form of cleaner. Figs. 6 and 7 are a partial longitudinal section and cross-section, respectively, of the spring-casing. Figs. 8 and 9 are a side view and longitudinal section, respectively, of another form of construction of the cleaner.

In the construction shown in Fig. 1 the cleaning-pad g when not in use is contained in the pocket k' of a frame k, and the casing a, inclosing the spring-drum b, serves simultaneously as a hollow handle for the said pad. The band or cord f, wound on the spring-drum, is attached at one end to the frame k, and is operated on by a lever i, which when at rest is pressed by a spring i^2 into the position shown in Fig. 2, in which it presses, by means of its roller i', the band or cord firmly on the support, and thereby clamps it fast. When it is desired to use the cleaner, it is taken hold of with the hand, the lever i is pressed by the index-finger, and the cleaner is removed from its seat, unwinding the band f from the spring-drum. If the lever i be then released, the band or cord f will be secured and thus allow the cleaner to be used. After use pressure is again applied to the lever i and the pad again returns to its place, the band f being automatically wound up by the spring-drum. The releasing of the cleaning-pad from its casing or seat may also take place without pressing on the stop-lever, as the latter only acts as a stop in one direction—that is to say, it only prevents an automatic drawing in, but not a drawing out, of the band or cord.

In the form of construction of the cleaner or wiper shown in Figs. 4, 5, 6, and 7 the casing a' of the spring-drum is firmly connected with the frame k and the cleaner or pad is provided with a separate handle a^2. As a stop or fastening device two pawls c are employed in this case, which are arranged on a disk b^2, revoluble with the drum b' on the spindle e. If the pad be moved from its seat, the drum b' and the disk b^2 are revolved in the direction shown by an arrow y, Fig. 6, the band f being simultaneously unwound. If, however, it be desired to retain the spring-drum in a given position, the pressure of the spring h is slowly yielded to—that is to say, the pad is allowed to move a little backward—by which means one of the pawls c by reason of its own weight engages in the ratchet e' on the fixed spindle e of the spring-drum, thus allowing the cleaning-pad to be used unimpeded by the pressure of the spring h. For the purpose of returning the pad into a non-working position it is first pulled outward, so that the pawl c may be released by the further rotation of the disk b^2 in the direction of the arrow y, Fig. 6, and then the pad is allowed to spring back sharply, in consequence of which the disk b^2 is rapidly rotated in the direction of the arrow x, Fig. 6, the pawls c swinging outward until they reach their contacts d and the

drum fully winding up the band *f* and returning the pad to its casing.

The modification shown in Figs. 8 and 9 is similar to the foregoing; but in this case the casing for the spring-drum resembles the form of construction shown in Figs. 1 and 3 in being utilized as a handle for the pad. The frame *k* may be dispensed with in many cases, as the cleaning-pad may, if necessary, be suspended freely on the band *f*.

It may be further pointed out that the locking device hereinbefore described is in itself an already-known form of construction and is merely intended to serve as an example, as any other suitable fastening device may be employed which allows of a suitable fixing of the spring-drum in any desired position.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a window-cleaner, the combination, with a stationary frame provided with a pocket; of a removable cleaning-pad fitting in the said pocket and provided with a handle for operating it, a flexible connection between the said pad and frame, and a spring-actuated drum for winding up the slack of the said connection, substantially as set forth.

2. In a window-cleaner, the combination, with a stationary frame provided with a pocket; of a removable cleaning-pad fitting in the said pocket and provided with a hollow handle for operating it, a flexible connection between the said pad and frame, and a spring-actuated drum arranged inside the said handle and operating to wind up the slack of the said connection, substantially as set forth.

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

ALFONS MAUSER.

Witnesses:

FRIEDRICH R. HENKE,

CHRISTIAN BAUER.