J. M. TANNER.

WINDOW CLEANER.

APPLICATION FILED MAR. 18, 1913.

1,122,438. Patented Dec. 29, 1914.

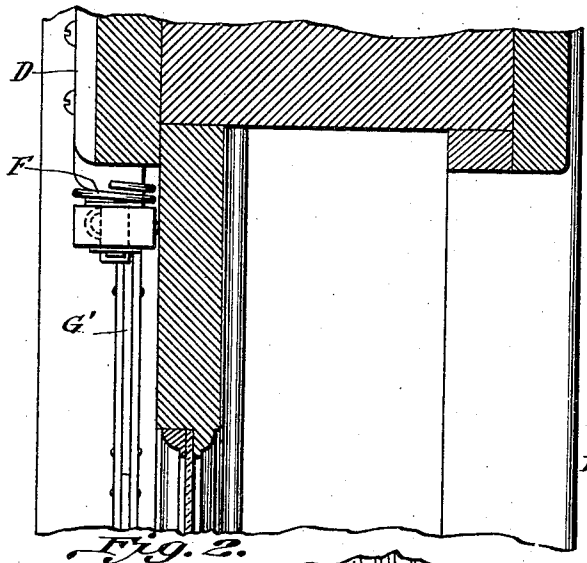


Fig. 2.

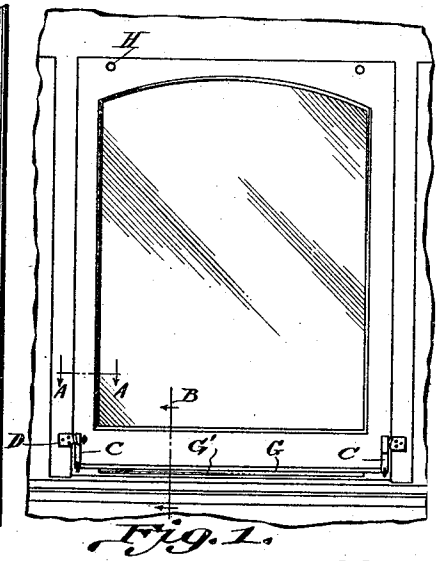


Fig. 1.

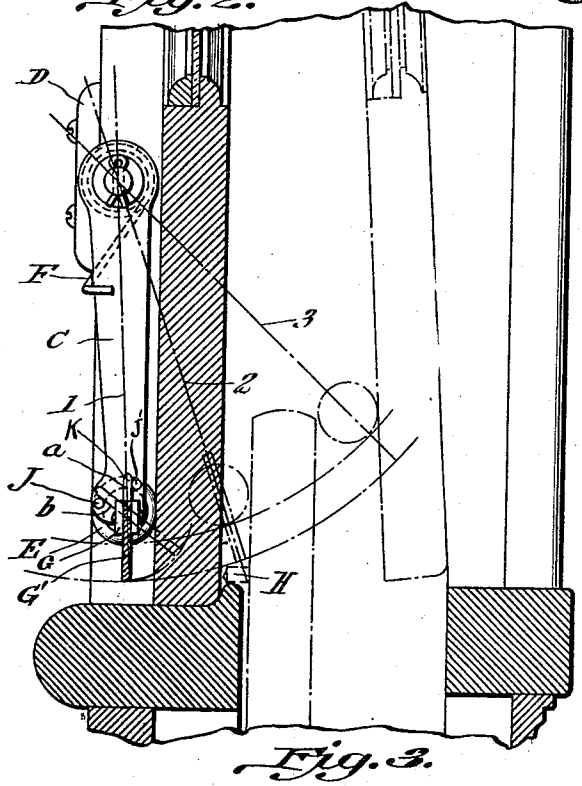


Fig. 3.

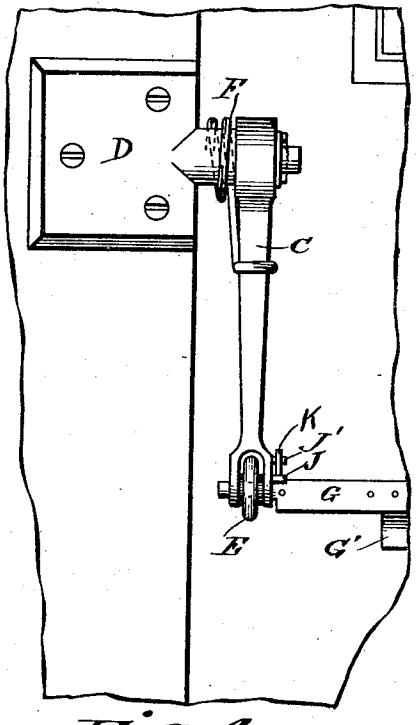


Fig. 4.

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UNITED STATES PATENT OFFICE.

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WINDOW-CLEANER.

1,122,438. Specification of Letters Patent. Patented Dec. 29, 1914.

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To all whom it may concern:

Be it known that I, JOHN M. TANNER, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Window-Cleaners, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to a class of window-cleaners for drop sashes.

The object of my invention is to provide an automatic cleaner which can be secured to the frame of car windows of the drop sash type, and which will clean the window as it is being raised for closing. The device is simple, cheap, and can be applied quickly to any drop sash window.

I attain the objects stated, as well as other advantages, by the construction, combination and arrangement of parts, illustrated in the accompanying drawing, which forms a part hereof.

Figure 1 is a front elevation of a window showing my device thereon. Fig. 2 is a horizontal plan section of a part of the device on the line A—A of Fig. 1. Fig. 3 is a horizontal sectional elevation of a part of the device on the line B of Fig. 1. Fig. 4, is an enlarged front elevation of a part of the device shown in Fig. 1.

Like letters refer to like parts throughout the views.

D is one of two like brackets secured on opposite sides of the casing of a car window. The brackets are each provided with integral pins extending horizontally in front of the sash.

C are arms pivotally mounted on the bracket pins.

F is a coil spring having one end secured to the bracket pivot and its opposite end secured to the arm C.

E is one of two like small wheels mounted in forks in the lower ends of the arms C.

J—J′ are lugs on the side of the arm fork.

G is a bar pivotally mounted at each end in the forks of the arms C.

G′ is a rubber strip rigidly secured upon the bar G.

K is one of two like rigid vertical pins on the bar G near the ends thereof.

H is one of two like lugs on the upper part of the window sash.

It will now be apparent that my device is attached to a car window provided with a drop sash which is adapted to be lowered into a seat or pocket in the usual manner with windows of that type.

It will be further seen that when the window is raised or is being lowered, the arms C, actuated by the spring F, force the wheels E into engagement with the sides of the sash. When the window is closed arms C are then in the position 1 and the bar G and strip G′ are at the position *a* with the pin K engaging the lug J′ as shown in Figs. 3 and 4. The lugs H pass below the rubber strip G′ when the sash is down and as it is raised they will engage the rubber strip as shown at position 2 and will cause the bar G to turn until the pins K will engage the lugs J and the rubber strip G′ will engage the glass of the sash when the arm C is in position 3, all as shown in Fig. 3. When the rubber strip is in contact with the glass at an angle it scrapes the snow or water from it downwardly until the lower part of the sash is opposite the rubber strip and the arms C will then be forced outwardly by the sash and the bar G will drop by gravity to the first position shown. I contend that my device being adapted thus to scrape the glass downwardly it differs from all other devices, the purpose of which is to clean sliding windows automatically.

Having thus described my invention, what I claim to be new is as follows:—

A window-cleaner for slidable windows, comprising arms pivoted on brackets secured to the window frame, springs secured at one end to said brackets and at the other ends upon the said arms in position to force them inwardly, wheels pivoted in the free ends of the arms adapted to engage the sides of the sash, a horizontal cleaner having its ends pivoted in the free ends of the arms, vertical pins on the ends of the cleaner, lugs on the sides of the free ends of the arms adapted to engage the cleaner pins when the cleaner has rotated pre-determined distances, lugs on the upper part of the window sash adapted to engage the cleaner when the sash is raised, substantially as described.

JOHN M. TANNER.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."