C. T. PHELAN.
Window-Netting.

No. 225,021. Patented Mar. 2, 1880.

Fig. 1.

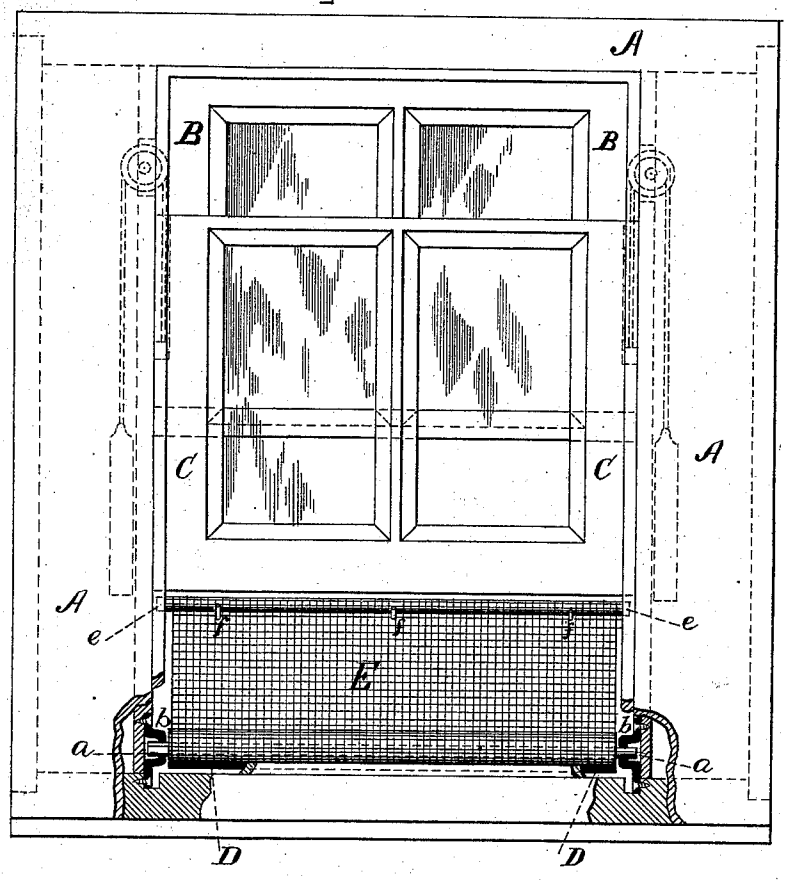


Fig. 2.

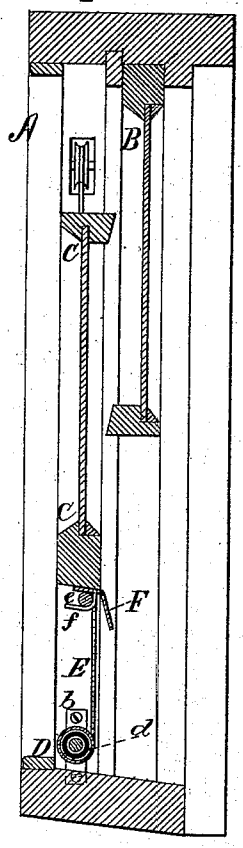
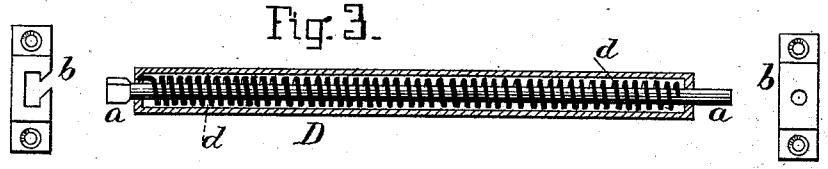


Fig. 3.



Witnesses.
Henry F. Parker
Thos. J. Farrell

Inventor.
Charles T. Phelan.
per James A Whitney
Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES T. PHELAN, OF NEW YORK, N. Y.

WINDOW-NETTING.

SPECIFICATION forming part of Letters Patent No. 225,021, dated March 2, 1880.

Application filed July 2, 1879.

To all whom it may concern:

Be it known that I, CHARLES T. PHELAN, of the city, county, and State of New York, have invented certain Improvements in Window-Nettings, of which the following is a specification.

This invention relates to that class of window-screens in which the screen is coiled upon a roller, and has one of its ends so attached to the adjacent window-sash that when the sash is raised the screen will be unwound from the roller to occupy the space opened by the raising of the sash.

The object of my said invention is to provide a window-screen of the class mentioned which will be capable of easy removal when not required for use, and which will be held strained throughout its width and length without liability to displacement or disturbance when applied to practical use.

My said invention comprises a novel combination of one or more open sockets attached to the lower part of the window-frame, a spring-roller detachable from said frame, a sheet of reticulated material attached to and coiled upon said roller, a straight rod or bar attached to and extending quite across the outer end of said sheet, a series of hooks attached to the lower edge of the window-sash, and a shield also attached to said lower end of said sash, to wholly close the space when the sash is lowered, the whole arranged for co-operative action in such manner as to secure the hereinbefore-indicated result.

Figure 1 is a front view of a window fitted with netting according to my said invention. Fig. 2 is a vertical transverse sectional view of the same; and Fig. 3 is a detached view, showing certain details of the construction thereof.

A is the window-frame, of any usual size and configuration, and also, in any suitable or usual manner, provided with one or more sashes, B C. D is a roller, similar to a simple curtain-roller, which has its end bearings or gudgeons *a* working in suitable sockets *b* in the sides of the frame, one of said sockets *b* being open at the side, as shown in Fig. 3, to enable the roller to be wholly removed or taken away when desired. When preferred, both of the sockets *b* may be open; but this is superfluous, as one open-sided socket readily permits the detachment of the roller. This roller is fitted with an internal spring, *d*, so applied as to be coiled or strained when the roller is turned in one direction, in order that when the roller is released it may be rotated in the opposite direction by the reaction of the spring. This roller D has attached to it one end of a sheet or web, E, of netting or reticulated material of such mesh and character as to freely permit the passage of air through it, while flies, gnats, &c., are excluded. The opposite end of this sheet or web has attached to it a rod, *e*, which may be attached to the lower end of the lower sash by being laid or placed upon hooks *f*, attached to said sash.

When the sash is raised to any extent required the sheet or web of netting is drawn upward (unrolled from the roller) quite across the opening provided by lifting the sash.

When the sash is lowered the action of the spring causes the roller to rotate in such direction as to rewind the web or sheet of netting on said roller as fast as the said sheet or web is slackened or released by the downward or return movement of the sash.

By the means described a very cheap and efficient self-acting window-netting is secured, which provides for the perfect exclusion of winged insects without in any wise interfering with the ventilation due to the opening of the windows.

It will be observed that the web or sheet being attached to the sash along the entire width of the latter, while the said web is in like manner attached to the roller extended the entire width of the frame, provision is made for covering the entire space opened by the lifting of the sash, and for the steadiness of the web where attached to the window, so as to avoid any temporary displacement which would permit the entrance of insects.

It will also be observed that by detaching the rod from the hooks the space of the opened window may be left clear when such, for any reason, is desired.

The gudgeons of the roller being placed in sockets of suitable construction, the roller may, on occasion, be readily removed.

A shield, F, is provided to the edge of the sash to which the web is attached, in such man-

ner that when the sash is closed the shield will cover and protect the roller D and the web or sheet of netting or reticulated material wound thereon.

What I claim as my invention is—

The window netting or screen composed of one or more open sockets, *b*, attached to the lower part of the window-frame A, the spring-roller D, detachable from said frame, the sheet E of reticulated material attached to and coiled upon said roller, the straight rod or bar *e*, attached to and extending quite across the outer end of the sheet E, a series of hooks, *f*, attached to the lower end of said window-sash, and the shield F, also attached to the lower end of said sash, the whole combined for joint use and operation, substantially as herein set forth.

CHARLES T. PHELAN.

Witnesses:

THOS. J. FARRELL,

HENRY F. PARKER.