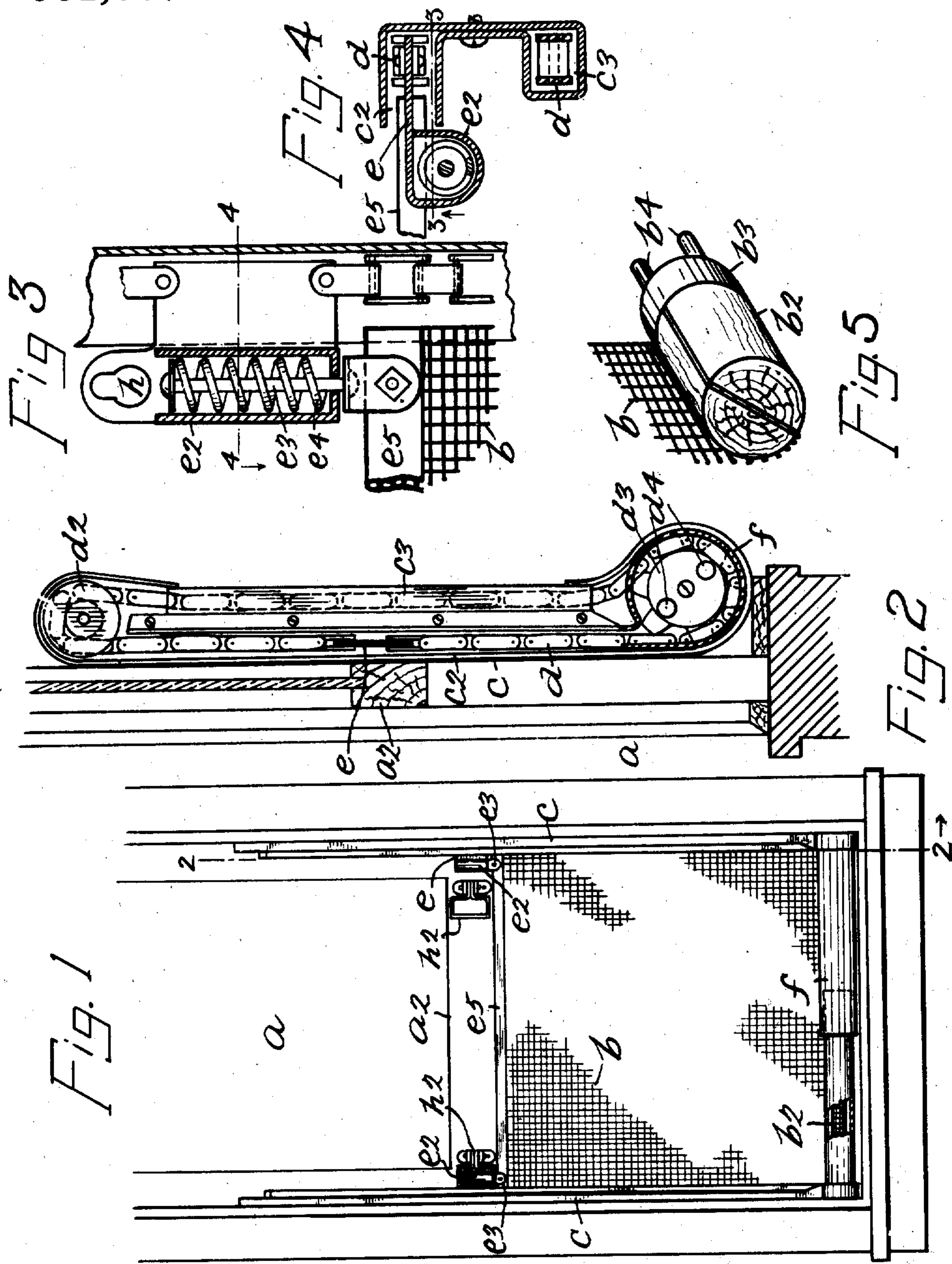


M. CASSON.  
WINDOW SCREEN.  
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901,067.

Patented Oct. 13, 1908.



Witnesses:  
William Murray  
W. J. Booth

Inventor  
Matthew Casson  
By Attorney J. Chris Larsen



# UNITED STATES PATENT OFFICE.

MATTHEW CASSON, OF NEW YORK, N. Y.

## WINDOW-SCREEN.

No. 901,067.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed March 21, 1908. Serial No. 422,447.

*To all whom it may concern:*

Be it known that I, MATTHEW CASSON, a citizen of the United States of America, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to screens for windows and the like and the object thereof is to provide such a device which is automatic in its movement, when a sash is moved; a further object being to provide such a device which, when not in use, may be rolled into small compass and not be in the way, although always in position for use; a further object being to provide such a device which may be readily adapted to various size windows and which is readily attached to and removed from its operative position; a further object being to provide such a device which is automatically rolled up, when a sash is lowered, without the use of springs and the like; a further object being to provide means whereby the unequal rolling or unrolling, due to increasing or decreasing the diameter of the roller and screen thereon in the said operations, may be compensated for to prevent injury to the screen itself or the support therefor and a still further object being to provide such a device which is simple in construction and operation, comparatively inexpensive and well adapted to the use for which it is intended.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts thereof are designated by the same reference characters in each of the views, and in which:—

Figure 1 is a face view of a window provided with my invention, in position for use; Fig. 2 is an enlarged section thereof on the line 2—2 of Fig. 1; Fig. 3 is an enlarged, sectional, fragmentary view of a detail of the construction; on the line 3—3 of Fig. 4; Fig. 4 is a similar view on the line 4—4 of Fig. 3; and Fig. 5 is a fragmentary view of another detail of the construction.

In the drawings forming a part of this application, I have shown a window  $a$ , having sashes, the lower one  $a^2$  of which is shown in a raised position, the opening

caused thereby being covered by a netting  $b$  wound upon a roller  $b^2$  having caps  $b^3$  and two pins  $b^4$  at each end thereof, said roller being preferably formed of two members secured together and between which the netting is firmly held, said netting being preferably of flexible metal but it may also be of fabric, if desired.

Secured upon each side of the window frame  $a$ , adjacent the sash  $a^2$ , is a metal strip  $c$ , bent, as shown in Fig. 4, to form two pockets  $c^2$  and  $c^3$  which serve as runs for an endless sprocket chain or equivalent  $d$  passing over a roller  $d^2$  and a sprocket wheel  $d^3$  secured at the top and bottom of the strip  $c$  as shown in Fig. 2, said sprocket wheel  $d^3$  being provided with two holes  $d^4$  to receive the pins  $b^4$  in order to rotate the roller  $b^2$  therewith.

Secured to the chain  $d$  is a bracket  $e$  extending outwardly from the pocket  $c^2$  and carrying a tube  $e^2$  having a rod  $e^3$  movable therein and normally forced inwardly by a spring  $e^4$ , said rod  $e^3$ , at each side of the window, carrying the corresponding end of a transverse bar  $e^5$  to which the netting  $b$  is secured, and it will be seen that by means of the springs  $e^4$  a continual tension is maintained on the netting  $b$  although additional strain thereon will be compensated for by the said springs and thus prevent tearing the said netting.

In practice, I prefer to cover the roller  $b^2$  with a casing  $f$  which is made telescopic for adjustment to various size windows and I also employ some means for attaching the bar  $e^5$  or tubes  $e^2$  to the sash  $a^2$  such as a hole  $h$  in the said tube hanger for engagement with a pin, screw or nail in the sash or a catch  $h^2$ , shown attached and detached in Fig. 1, hinged to the sash and adapted to be engaged with the tube  $e^2$  or any other suitable equivalent may be provided which is quickly attached and detached to and from either the sash or netting.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A window screen, comprising a roller, a netting thereon, means for insuring the movement of the outer end of said netting in the rotation of said roller comprising endless chains, a tube secured to said chains at each side of said netting, an elastic connection between said tubes and said netting and

catches on a movable part of said window and adapted to engage said tubes and move said netting with said movable part.

2. A window screen, comprising a roller, a netting thereon, endless chains for actuating said roller, guide rollers for said chains, a tube secured to each of said chains, and an elastic connection between said tubes and said netting.

3. A window screen, comprising a roller, a netting thereon, endless chains for actuating said roller, guide rollers for said chains, a

tube secured to each of said chains, an elastic connection between said tubes, and said netting and means for connecting said tubes with a movable part of said window. 15

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 19th day of March 1908.

MATTHEW CASSON.

Witnesses:

WILLIAM J. MURRAY,  
JOHN L. O'HARA.