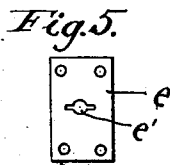
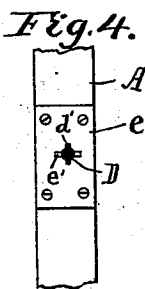
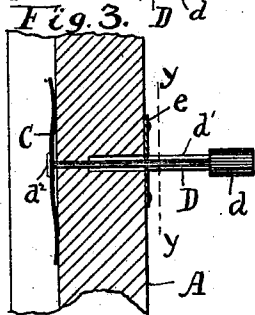
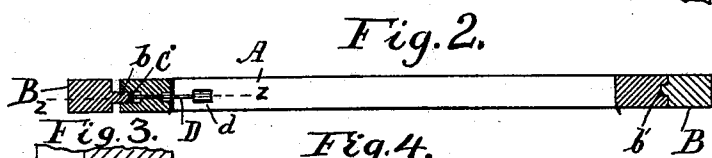
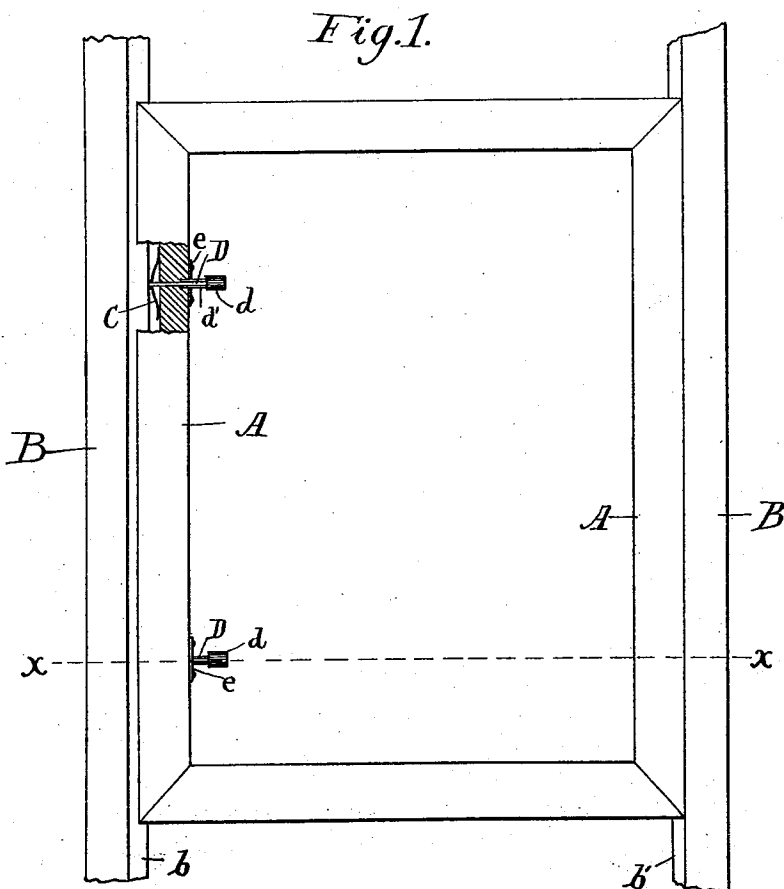


(No Model.)

W. W. COLE.
WINDOW SCREEN.

No. 517,602.

Patented Apr. 3, 1894.



Witnesses:
E. L. Bates
H. L. Bates

Inventor:
Warren M. Cole
by S. M. Bates
his atty.

UNITED STATES PATENT OFFICE.

WARREN W. COLE, OF PORTLAND, MAINE.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 517,602, dated April 3, 1894.

Application filed December 30, 1893. Serial No. 495,202. (No model.)

To all whom it may concern:

Be it known that I, WARREN W. COLE, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Window-Screens; 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.

My invention relates to window screens and particularly to a device for retaining such screens in place in the casing.

The invention is designed to be applied to the side bars of those window screens which are grooved and held in place in the casing by means of tongues secured to the casing or it may be used where the screen has tongues which fit into grooves in the casing.

Previous to my invention friction plugs were mounted in the side bars of such window screens as I have described, and were pressed outward against the casing by coiled springs. The plug in this form of device was withdrawn or disengaged when the screen was to be taken out or put in and it was held in its retracted position by means of a perforated plate which engaged a notch in the side of the spindle by which the plug was withdrawn.

In operating the device described, it was found to be an easy matter to accidentally release the spindle from engagement with its plate when the screen was being adjusted by striking the spindle and causing the notch to slip off the edge of the plate. In my present invention I have sought to improve on this device by a construction which will admit of the locking of the spindle in its retracted position in such a manner that it cannot be accidentally displaced. I have also simplified the construction of the screen and made use of a semi-elliptical spring in the place of the coiled spring heretofore used.

In the accompanying drawings I have illustrated my invention as applied to a screen having a groove fitting a tongue in the casing.

In the drawings Figure 1 is a front view with a portion in section. Fig. 2 is a section on the line *xx* of Fig. 1. Fig. 3 is an enlarged section on the line *zz* of Fig. 2. Fig.

4 is a section on the line *yy* of Fig. 3. Fig. 5 is a view of the retaining plate.

B represents the window casing and *b* and *b'* are tongues secured thereto. The screen frame A is provided with grooves in its side bars adapted to fit said tongues. The tongue *b'* as here shown is made narrower than the tongue *b* and the groove which fits the tongue *b* has a corresponding depth. The tongue *b* and its corresponding groove are sufficiently deep so that when the screen is pressed against the casing on that side the opposite side will come free from the tongue *b'* and the screen may thus be taken out and put in in a manner which is well known.

My retaining device is applied to the side bar in one side and serves to force the screen against the casing on the opposite side. It consists of a semi-elliptical spring C arranged with its central portion projecting outward and pressing against the groove *b* when in its normal or operative position. A spindle D is pivoted to the middle of the spring C and it has formed on its outer end a head *d*². The inner end of the spindle is preferably provided with a handle *d* by which it may be withdrawn and the spring released from contact with the tongue *b*.

Means are provided for securing the spindle in its retracted position when it is desired to remove the screen. For this purpose I make use of a perforated plate *e* through which the spindle passes and the inner end of the spindle is provided with an enlargement or projection *d'*. As herein shown, the body of the spindle is round and the projection *d'* is in the form of a flange or web which projects out at each side of the spindle forming a shoulder in such a position that it will rest against the plate *e* when the spindle is retracted. An opening *e'* is formed in the plate suitable in size and shape to allow the spindle to pass when it is in its normal position but when retracted and turned from its normal position it stops it from passing and thus locks it securely in place. The opening *e'*, as here shown, is the exact form of the cross section of the inner end of the spindle so that it is only necessary to pull back the spindle and give it a turn to lock it in place. It will readily be seen that when

the spindle is withdrawn and locked as here-
in described it cannot get accidentally un-
locked but must be turned by hand to its
normal position before it will release the
5 spring and allow it to act against the casing.

I claim—

10 The herein described device for retaining
window screens in place consisting of a spin-
dle extending laterally through the side bar,
a semi-elliptical spring for forcing said spin-
dle outward against the casing, the outer end
of said spindle being pivoted to said spring
and the inner end of said spindle having a
lateral projection, a retaining plate secured

to the side bar and having an opening through 15
which said spindle passes, said opening be-
ing so formed that it will allow said projec-
tion to pass when the spindle is turned to its
normal position but will stop it when turned
away from its normal position, substantially 20
as described.

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

WARREN W. COLE.

Witnesses:

S. W. BATES,

E. DUDLEY FREEMAN.