

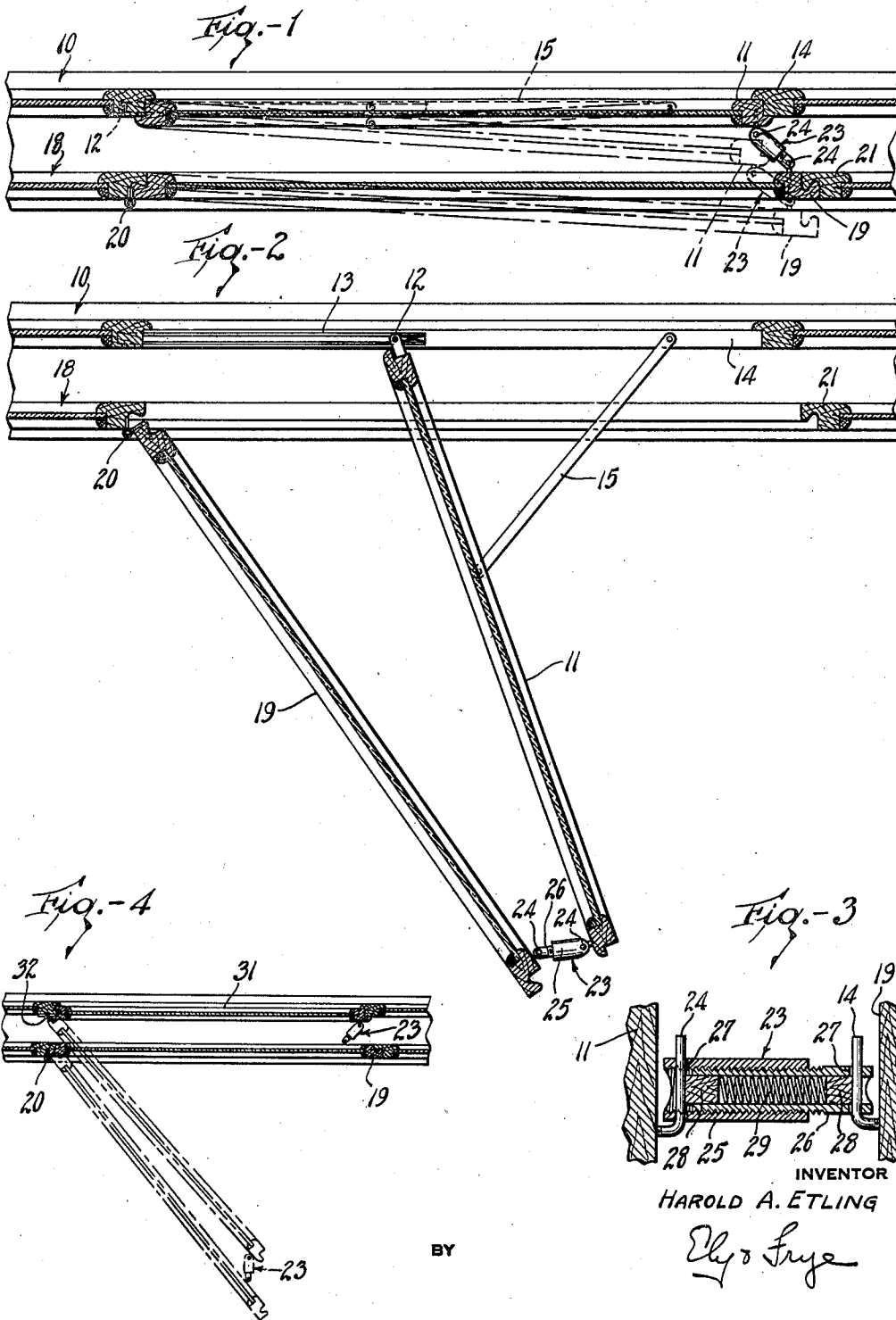
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H. A. ETLING

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CONNECTOR FOR STORM SASH

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BY

INVENTOR
HAROLD A. ETLING

Ely & Frye

ATTORNEYS

UNITED STATES PATENT OFFICE

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CONNECTOR FOR STORM SASH

Harold A. Etling, Barberton, Ohio, assignor to
Weatherseal, Inc., Barberton, Ohio, a corpo-
ration of Ohio

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1 Claim. (Cl. 74—586)

This invention relates to storm sash for case-
ment windows, and more especially it relates to
improved connections between a storm sash and
an outwardly opening casement window en-
abling the same to operate in unison, and pro-
viding a lock for the storm sash.

The chief object of the invention is to pro-
vide a simple and efficient means for connect-
ing a casement window and a storm sash to
enable the same to operate in unison; to pro-
vide a connection of the character mentioned
that has longitudinal adjustability to adapt it
to different installations; and to provide a con-
nection of the character mentioned that will not
permit rattling of the window or storm sash.
Other objects will be manifest as the description
proceeds.

Of the accompanying drawing:

Figure 1 is a horizontal section through a
casement window and a storm sash connected
thereto, the same being shown in closed posi-
tion in full lines and in partly open position
in broken lines;

Figure 2 is a view similar to Fig. 1 showing
the sashes in fully open position;

Figure 3 is a longitudinal section through one
of the connectors that secure the storm sash to
the casement sash; and

Figure 4 is a horizontal section through an-
other embodiment of the invention.

Referring to the drawing, 10 is a window gen-
erally, and 11 is an outwardly opening case-
ment sash constituting a part thereof, said case-
ment sash being mounted upon upper and lower
hinge pins, such as the hinge pin 12, which pins
are slidably mounted in respective slotted metal
guide members 13 attached to the framework 14
in which the casement sash normally seats. An
arm 15 is pivotally connected to the sash 11 and
framework 14 to cause sliding movement of the
hinge pins 12 in guides 13 as the casement sash
is being opened.

Mounted beside the window 10, on the side
thereof that is exposed to the weather, is a
storm window generally designated 18, said
storm window comprising a hinged, outwardly
opening section or sash 19, the hinge 20 of
which is at the same side of the sash as are the
hinge pins 12 of casement sash 11. The sash
19 normally seats in an opening in the frame-
work 21 of the storm window 18, which opening
is somewhat larger than the casement sash 11
so that the latter may swing therethrough.
The margins of the said opening and of the
storm sash 19 may be formed with complemental

tongues and grooves as shown to effect a weath-
er-tight seal when the storm window is closed.

The storm sash 19 is connected to the case-
ment sash 11 by one or more connecting links
23, which links are pivotally connected at their
opposite ends to the respective sashes. The said
pivotal connections comprise hinge pins 24, 24
that are secured to storm sash and casement
sash in parallel relation to the hinges 12, 20
thereof. Referring particularly to Fig. 3, it will
be seen that the connecting link 23 comprises
an interiorly threaded tubular member 25 and
an exteriorly threaded tubular member 26 tele-
scoped therewith, said members having thread-
ed engagement with each other so as to en-
able the connector as a whole to be lengthened
or shortened. A portion of each tubular mem-
ber 25 and 26 projects beyond the end of the
other tubular member, and each of said pro-
jecting portions is diametrically apertured at
27 to receive a hinge pin 24. Mounted interior-
ly of the tubular member 26 is a pair of cylin-
drical plugs or blocks 28, 28 of wood, fibre, or
similar material, and positioned between said
plugs is a coiled compression spring 29 that
urges said plugs away from each other and into
engagement with the hinge pins 24 that ex-
tend through the outer end portions of said
tubular members. The arrangement is such
that the hinge pins 24 are urged strongly
against the sides of respective apertures 27
with the result that no rattle is produced
when casement sash and storm sash are
swung outwardly and exposed to the action of
the wind.

The invention makes it possible to use storm
sash with outwardly opening casement windows,
and the opening of the casement window is ac-
complished without effort since the storm sash
is so connected thereto as to operate in unison
therewith. The improved connecting device is
of relatively simple construction and inexpen-
sive. It is easily and quickly attached, or de-
tached, from the casement and storm sash, and
prevents rattling of the sashes when they are
open and wind is blowing.

The invention also makes it possible to se-
cure substantially draftless ventilation, such as
is desirable in sleeping rooms in the night sea-
son. This is accomplished by opening the case-
ment and storm sash to the extent shown in
broken lines in Fig. 1. When so arranged the
casement sash 11 is disposed in the space be-
tween the window 10 and storm window 18, the
storm sash 19 being swung outwardly from the

latter. Thus air blowing through the opening left by the partly open storm sash impinges upon the casement sash, and can only enter the sleeping room by passing around the margins of the casement sash, by which time its velocity is substantially reduced.

The embodiment of the invention shown in Fig. 4 of the drawing is essentially the same as that previously described except that the casement sash, designated 31, is pivotally supported upon fixed hinges 32. The arrangement does not provide the facility for cleaning the storm sash as does the embodiment previously described, and the sashes cannot be opened quite as far. Otherwise the two constructions are of equal merit.

Other modification may be resorted to without departing from the spirit of the invention

or the scope thereof as defined by the appended claim.

What is claimed is:

A connector for joining the free edge of a casement sash to a storm sash, said connector comprising a pair of tubular elements threaded together in telescoping relation to each other, each of said elements having an end portion projecting beyond the end of the other element and formed with diametrically opposed apertures for receiving a pivot pin on one of said sashes, a pair of non-metallic plugs in the innermost tubular structure, and a compression spring positioned between said plugs and urging them outwardly against the respective pivot pins that extend through said tubular elements.

HAROLD A. ETLING.