(No Model.)

# A. C. & W. W. GIBSON.

## INSIDE WINDOW BLIND.

No. 262,399. Patented Aug. 8, 1882.

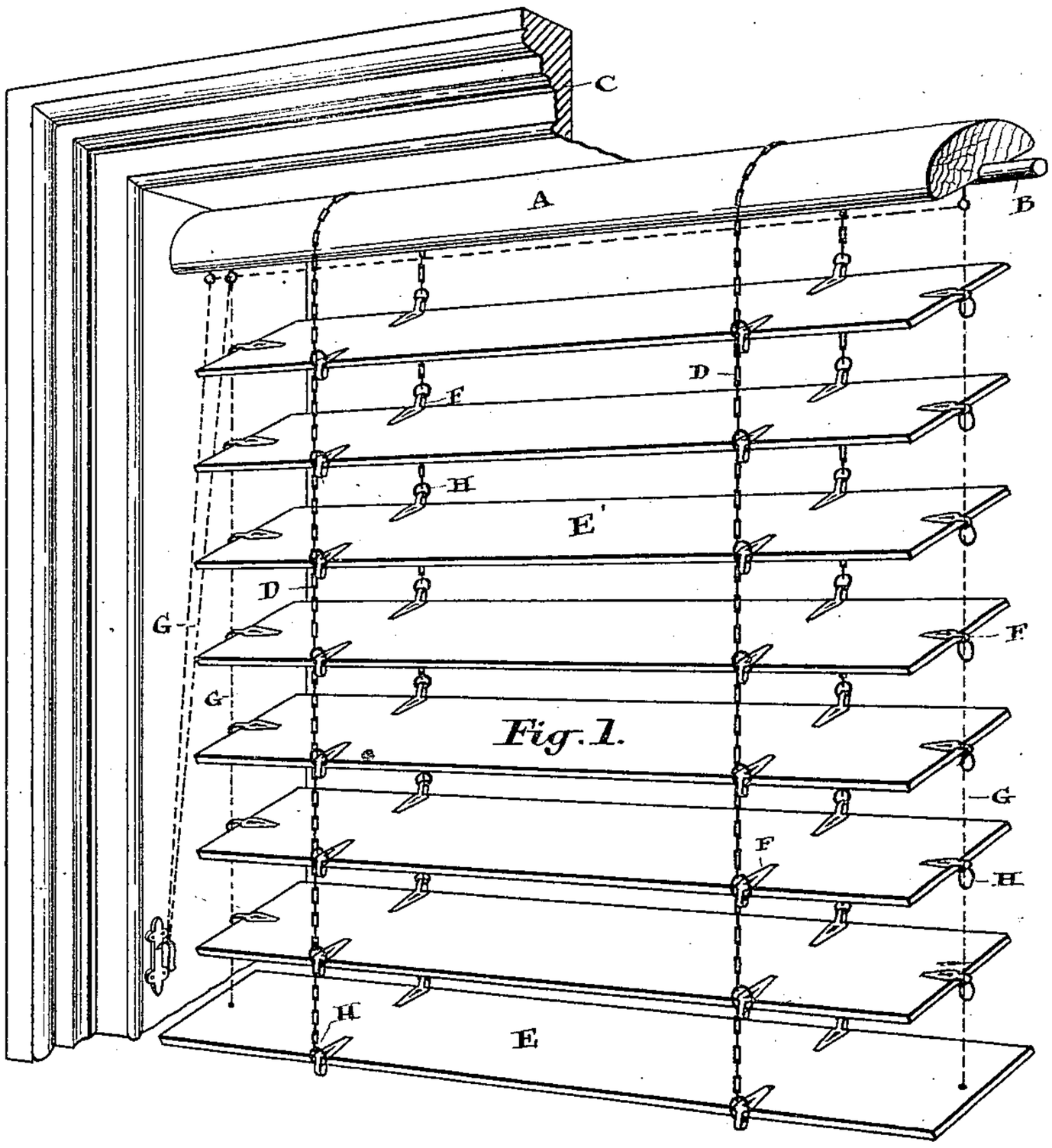


*Fig. 1.*


*Fig. 2.*

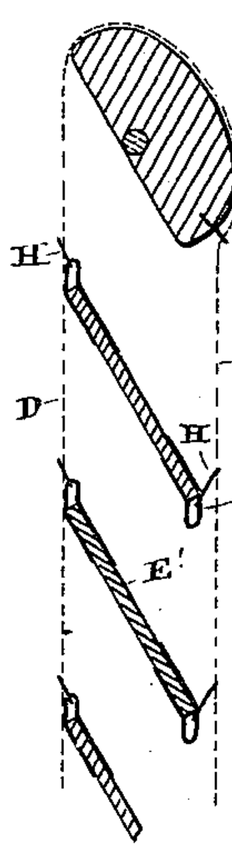


*Fig. 3.*

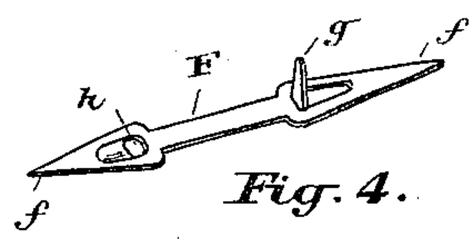


*Fig. 4.*

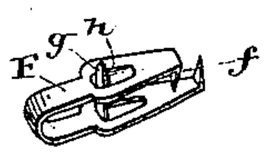


*Fig. 5.*

*Witnesses.*

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# UNITED STATES PATENT OFFICE.

ALEXANDER C. GIBSON AND WILLIAM W. GIBSON, OF TORONTO, ONTARIO, CANADA.

## INDSIDE WINDOW-BLIND.

SPECIFICATION forming part of Letters Patent No. 262,399, dated August 8, 1882.

Application filed March 27, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, ALEXANDER CALDER GIBSON and WILLIAM WALTER GIBSON, both subjects of the Queen of Great Britain, residing at the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Window-Blinds, of which the following is a specification.

Our invention relates to certain improvements in flexible-slat window-blinds; and it has for its object to provide a cheaply-constructed yet strong blind, in which the slats may be caused to fold closely together when thrown into a vertical position, the attachments being such that they will exert a closing force to the blinds when folded together; and it consists in connecting the slats together by a chain passing over a half-round piece pivoted at the top of the window-frame, the chain being secured to the top piece by a staple and to the slat below by a ring fitting into a peculiarly-formed staple secured to the opposite edges of each slat.

Figure 1 is a perspective view of our improved slat-blind, showing it in position. Fig. 2 is an end view of a portion of our improved blind, showing the slats closed. Fig. 3 is a similar view with the slats partially opened. Fig. 4 is a perspective view of our improved staple as it will appear before being hammered in position on the slats. Fig. 5 is a perspective view of the staple closed, showing the relative position of the holdfast points or prongs when forced into the slats.

A is the upper slat or top piece, provided with pivot-pins B, which fit into the suitable brackets secured near the top of the window-frame C.

D is a chain, the center of which passes over the top piece, A, and its ends are fastened opposite to each other to the edges of the bottom slat, E.

In the drawings we show two chains, D, arranged to support the slats; but of course more of them may be used, if required.

F is our improved staple, being a spear-ended piece of sheet metal with its ends *f* bent at right angles to form prongs. The center of one of the spear ends is stamped out so as to form a prong, *g*, corresponding with the prong *f*. The center of the other spear end has a hole, *h*, stamped out, as indicated in Figs. 4 and 5, for the purpose of receiving the end of the prong *g*, which passes through it for the purpose of forming a clinch-joint.

When manufacturing the staple we first stamp out of the sheet-metal the staple as it appears in Fig. 4. It is then placed in position on the slat, bent as shown in Fig. 5, and the prongs *f* and *g* forced through the slat, the prong *g* being such a length that after passing through the slat it will project through the hole *h*, when its end may be riveted into the recess formed in the back of the spear end, immediately next to the hole *h*.

We have thus minutely described the formation of the staple, as it constitutes an important element in the formation of our improved slat-blind.

When manufacturing the blind the staples F, when formed as described, are first stamped into position on the slats E and E′, being arranged in pairs opposite to each other on the edges of the slats for the chain D and on the center of the ends of the slats for the lifting-ropes G. Each of the staples is provided with a ring, H. The rings in the staples provided for the chain D are secured to the links of the said chain, thus supporting each slat, as indicated in Fig. 1, so that the pivotal point of each slat is parallel with the center line of the pivotal points of the top piece, A. Owing to this fact and to the ring-and-staple connection between the slats and the chain, as described, when the top piece, A, is turned upon its pivot the slats are carried with it, the tension of the chain D being as indicated in Fig. 2, such as will direct a closing force to the slats, as indicated in this figure.

We should mention, as it is important to the satisfactory closing of the slats, that the loop of each staple is, when forced into the edges of the slats, set at an angle of about forty-five degrees to the surface of the same.

It will be noticed that the lifting-ropes G pass through rings H, fixed to each staple on the ends of the slats. As the ends of the ropes G are fastened to the bottom slat, E, they will, when drawn upon, raise the bottom slat, which

takes up each slat in succession till the whole are raised, the flexibility of the chain D permitting the slats to come together.

It will be noticed that the top piece, A, is semi-oval in form, the chain D passing over the oval side, to which it is secured at one point by the staple I. It will also be noticed that the pivot-pins B are centrally fixed at either end near the flat side of the piece. This form and location of the pivot-pins assists greatly the satisfactory working of our blind.

What we claim as our invention is—

1. In a window-blind composed of horizontally-suspended slats flexibly connected together, a top piece, A, of semi-oval form, and longitudinally pivoted upon pivot-pins B, centrally located at either end of the piece A, near the flat side thereof, in combination with a chain, D, passing over the oval side of the piece A, and suitably secured thereon, the said chain being connected to each slat by rings H, suspended from staples clinched upon the edges of the slats, and having their open or looped portions at an angle thereto, substantially as and for the purpose specified.

2. In connection with a window-blind composed of horizontally-suspended slats, a staple formed from a spear-ended piece of sheet metal, the points of the spear ends being bent at right angles to form the prongs *f*, the center of one spear end being stamped out to form the prong *g*, while the center of the other spear end has a hole, *h*, stamped through it to receive the end of the prong *g*, substantially as and for the purpose specified.

3. In connection with a window-blind composed of horizontally-suspended slats, a staple formed out of a double spear-ended piece of sheet metal, with the points of the spear ends bent at right angles to form prongs, the prongs at one end being forced into the top side of the slat, while the prongs at the other end are forced into the opposite side, the loop of the staple formed by thus bending it around the slat being set at an angle, substantially as described.

Signed at the city of Toronto this 14th day of March, 1882.

A. C. GIBSON.
W. W. GIBSON.

In presence of—
THOMAS HODGINS,
*Of the City of Toronto, Province of Ontario, Notary Public.*
C. C. BALDWIN.