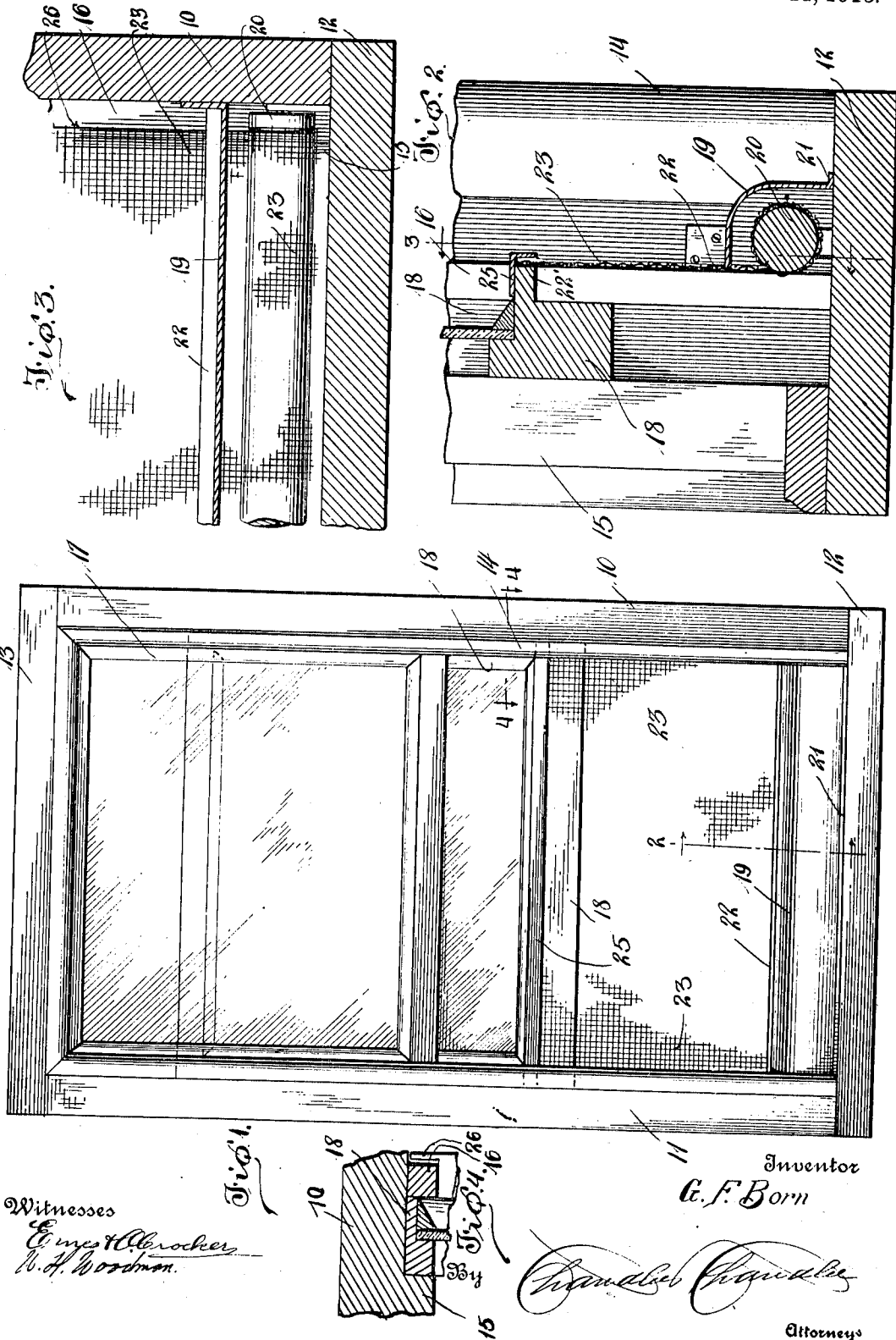


G. F. BORN.
WINDOW SCREEN.

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1,055,381.

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UNITED STATES PATENT OFFICE.

GABRIEL F. BORN, OF GNADENHUTTEN, OHIO.

WINDOW-SCREEN.

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To all whom it may concern:

Be it known that I, GABRIEL F. BORN, a citizen of the United States, residing at Gnadenhutten, in the county of Tuscarawas, State of Ohio, 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.

This invention relates to window screen of the class wherein a rolling screen is employed and arranged to be actuated by the sash to close the opening when the lower sash is elevated or the upper sash lowered, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character wherein provision is made for protecting the rolled screen from rain and snow when in its lowered or inoperative position.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claim; and, in the drawings illustrative of the preferred embodiment of the invention,

Figure 1 is a view of a conventional window viewed from the outside with the improved device attached to the lower sash, the lower sash being partly raised or open, while the upper sash is closed, Fig. 2 is a section, enlarged, on the line 2—2 of Fig. 1, Fig. 3 is a section on the line 3—3 of Fig. 2. Fig. 4 is a section on the line 4—4 of Fig. 1.

The improved device may be applied to any of the various forms of windows having vertical movable sashes, and for the purpose of illustration is shown applied to a conventional window, in which 10—11 represent the side members, 12 the sill member, and 13 the head member of the frame, 14 represents the outside stops, 15 the inside stops, 16 the parting stops, 17 the upper sash, and 18 the lower sash.

The improved device may be applied to both the upper and lower sash, or to one of the sashes only as may be desired, but is shown applied to the lower sash for illustration. The device does not require any material modification or change to adapt

it to either the lower or the upper sash, and consists primarily of a casing or hood 19 of sheet metal which is attached to the side members 10 and 11 near the sill 12 for the lower sash and near the head member 13 for the upper sash.

Mounted within the hood 19 is a spring roller 20, of the usual construction employed for window shades which is detachable from the housing or casing by forming a socket having a circular seat upon one end of the housing and a socket having an open slot at the opposite end of the casing, the sockets being substantially in the same form as those used in connection with the ordinary spring shade roller. By this arrangement the spring rollers may be readily inserted and removed as required, and as hereinafter explained. At its outer edge the housing 19 is provided with a laterally extending flange 21 for bearing upon the upper surface of the sill 12 or the lower surface of the head member 13, and each housing is likewise provided at its inner side with a vertically extending rib 22, the rib being directed upwardly when used for the lower sash and directed downwardly when used for the upper sash.

Formed integrally upon the outer side of the lower member of the lower sash 18 is a holding strip 22' around the outer edge of which is secured a sheet of screen material 23, the strip 23 being secured by screws or other suitable fastening devices to the sash member. The opposite end of the netting material 23 is connected to the roller 20 which is located in the lower housing 19. The strip 22' is so located that when the sash 18 is in its lower or closed position the upper side of the strip will be located above the upper edge of the adjacent rib 22, and secured to the strip 22' is an L-shaped plate 25, the outer member of the L-shaped plate being arranged to overlap the rib 22 of the lower housing member 19, as shown in Fig. 2. The inner edge of the guard strip 25 bears closely against the outer face of the sash 18 to prevent the entrance of rain or snow, and by overlapping the rib 22 of the lower housing, the latter is guarded from snow and rain and the netting material 23 thereby protected when the sash is in its lower position. This is an important feature of the improved device and adds materially to its value and efficiency. The arrangement for the upper sash is precisely

the same as that for the lower sash except that the parts are reversed in position.

At its ends the L-shaped member 25 is cut away to fit around the parting stops 16, as shown in Fig. 4, thereby not only completing the construction, but effectually preventing any rattling of the sash in event of its working loose. The ends of the housing 19 will be noted bear against the inner faces of the casing members so that the spring rollers may be extended for the full distance between the side members of the frame. By this simple means it will be obvious that when the sash is lowered the spring roller will cause the webbing material 23 to be wound thereon and thus disposed within the housing 19 and covered and protected by the guard member 25. When the sash is raised the screen material will be unwound from the roller and extended across the opening beneath the sash, and thus automatically provide for the thorough protection of the room into which the window opens, without requiring any attention from the operator. At its edges the screen material 23 is formed with a relatively heavy selvage as represented at 26, so that the screen material will be held closely against the parting stops and

thus effectually exclude mosquitos, flies or other insects. The screen material is thus reinforced and strengthened at the edges and is enabled to effectually resist the force of the wind.

What is claimed is:—

The combination with a window frame of a sash mounted therein having a holding strip projecting from its outer face, of a housing secured to the frame, a spring roller within the housing, a sheet of screen material secured by one edge to the roller and adapted to be wound thereon, the opposite edge of the material being secured to the projecting holding strip, the housing having one edge directed upwardly, and an L-shaped guard strip secured by one edge to the upper face of the holding strip while its opposite edge is spaced from the outer edge of the holding strip and adapted for engagement over the upwardly directed edge of the housing.

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

GABRIEL F. BORN.

Witnesses:

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