March 2, 1926. 1,575,343

A. P. KELLER ET AL

GRATING FOR PRISON WINDOWS, CELLS, OR THE LIKE

Filed Jan. 23, 1922 2 Sheets-Sheet 1

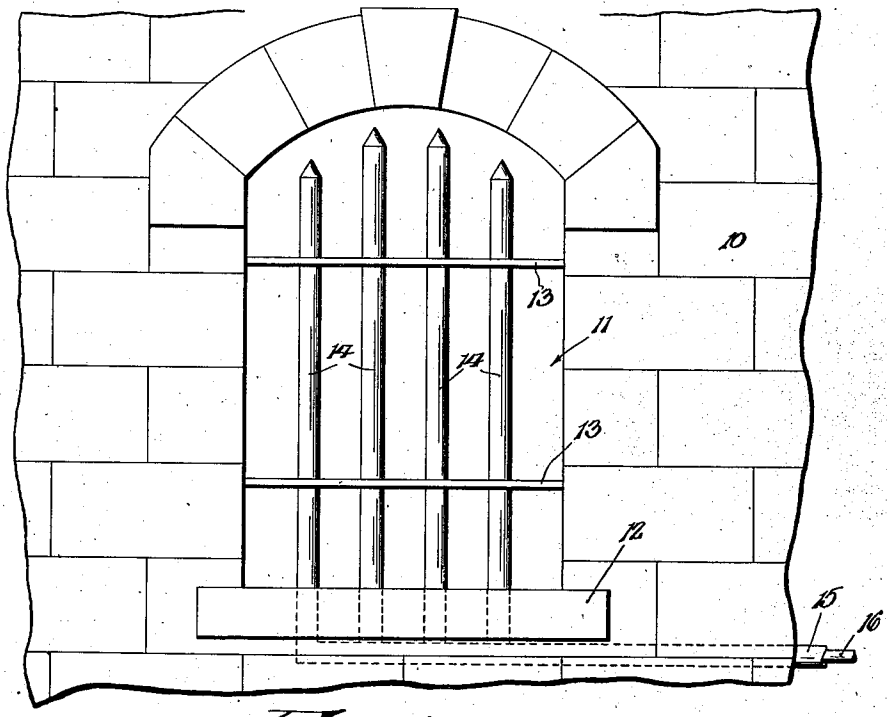


Fig. 1.

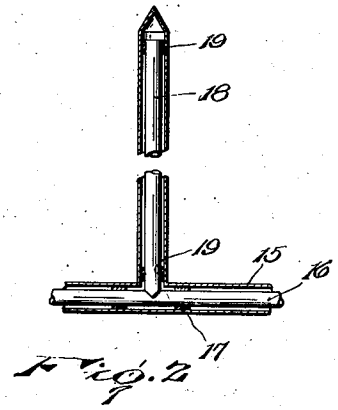


Fig. 2.

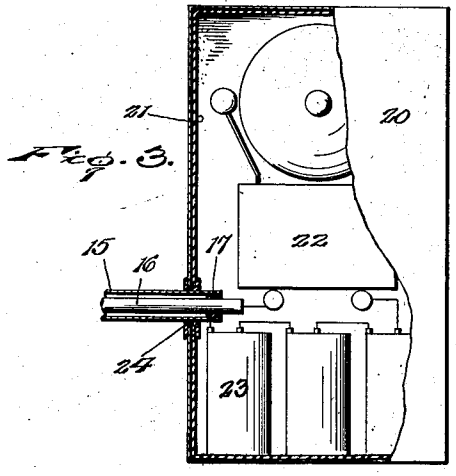


Fig. 3.

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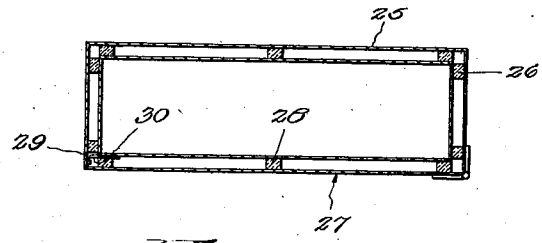


Fig. 5.

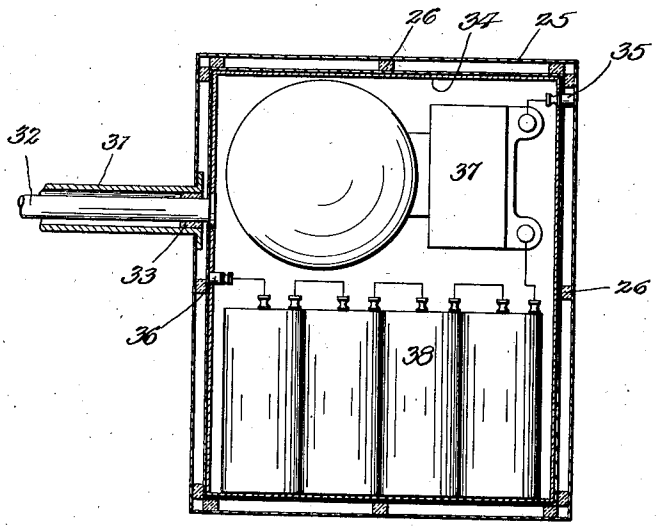


Fig. 4.

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UNITED STATES PATENT OFFICE.

ANDREW P. KELLER AND JOHN V. SCHLERETH, JR., OF TIFFIN, OHIO.

GRATING FOR PRISON WINDOWS, CELLS, OR THE LIKE.

Application filed January 23, 1922. Serial No. 531,251.

To all whom it may concern:

Be it known that we, ANDREW P. KELLER and JOHN V. SCHLERETH, Jr., citizens of the United States, residing at Tiffin, in the county of Seneca and State of Ohio, have invented certain new and useful Improvements in Gratings for Prison Windows, Cells, or the like, of which the following is a specification.

This invention relates to an improved grating for prison windows, cells or the like, and has as one of its principal objects to provide a grating of such construction that neither ingress or egress can be had through the grating without detection.

A further object of the invention is to provide a grating wherein bending of the bars thereof or attempt to saw through said bars will result in the sounding of a suitable annunciator.

And the invention has as a still further object to provide a grating which will be well adapted for general use.

Other and incidental objects will appear hereinafter.

In the drawing:

Figure 1 is a fragmentary elevation showing our improved grating in connection with a prison window.

Figure 2 is a detail sectional view taken through one of the bars of the grating,

Figure 3 is a fragmentary elevation partly broken away and shown in section, this view illustrating the annunciator and annunciator box employed,

Figure 4 is a vertical sectional view showing a modified form of annunciator box employed, and

Figure 5 is a sectional view taken at right angles to Figure 4.

Referring now more particularly to the drawing, we have, for convenience, shown our improved grating in connection with a prison window. An ordinary wall is illustrated at 10 and formed in said wall is a window 11 having a sill 12. In carrying the invention into effect, we employ spaced cross rods 13 extending transversely of the window and embedded in or otherwise secured at their ends to the wall 10. Sustained by these rods is a plurality of parallel bars 14 which extend through the rods and are suitably fixed thereto. As shown in Figure 2, the bars 14 are tubular in construction, being preferably closed at their upper ends, while the lower end portions of the rods are arranged to extend through the sill 12 and are firmly connected to a conduit 15 embedded in the wall 10. The bars as well as said conduit are, of course, formed of metal and extending through the conduit is a conductor 16. This conductor is insulated from the conduit by a plurality of insulating rings 17 surrounding the conductor, these rings being formed of any approved dielectric material and serving to center the conductor with respect to the conduit. Extending from the conductor within the bars 14 are branch conductors 18. These branch conductors are insulated from the bars by suitable insulating rings 19 centering the branch conductors with respect to the bars, the rings 19 being similar to the rings 17, At their lower ends, the branch conductors are soldered or otherwise effectively secured to the conductor 16.

An annunciator casing or box 20 is employed, this box being preferably formed of metal and being provided with a suitable insulating lining 21. Arranged within the box is an appropriate annunciator, as conventionally illustrated at 22, batteries 23 being also housed within the box below the annunciator. As shown in Figure 3 of the drawing, the conduit 15 extends into the box, being insulated therefrom by an appropriate insulating bushing 24, while the conductor 16 projects from the adjacent end of said conduit into the box. A suitable wire is employed to connect the conductor with one post of the annunciator and, as will be observed, one lead from the batteries is connected to the remaining post of the annunciator while the other lead from the batteries is connected to the conduit 15. The annunciator box will, of course, be arranged at some place accessible only to the warden of the prison or other authorized person.

As will now be readily understood in view of the preceding description, attempt to spread the bars 14 will result in bending the bars into engagement with the branch conductors 18, thus grounding said conductors and closing the circuit through the annunciator 22 so that a warning signal will be sounded. Similarly, attempt to saw through the bars will result in sounding of the annunciator. Should the cross rods 13 be severed or otherwise released, the bars 14 will, nevertheless, still obstruct the window and any attempt to displace the bars will result in bending of the bars at the window

sill 12. Such bending of the bars will, of course, result in closing the circuit through the annunciator. We accordingly provide a grating which cannot be displaced or through which ingress or egress cannot be had without the sounding of a warning signal.

In Figures 4 and 5 of the drawings, we have illustrated a slightly modified form of annunciator box wherein a box body 25 is employed. This box body is preferably formed of spaced inner and outer walls held apart by spacing strips 26 interposed between the walls, the strips being formed of any suitable insulating material. Hinged upon the box body is a door 27 which, like the box body, is also formed of spaced inner and outer walls held apart by spacing strips 28 interposed therebetween, the strips 28 being similar to the strips 26. As will be observed, the inner wall of the door is arranged to abut the free edges of the inner wall of the box body while the outer wall of the door is arranged to abut the free edges of the outer wall of the box body. Projecting from the outer wall of the box body is a contact 29 and mounted upon the inner wall of the door is a spring contact 30 disposed to engage at its free end with the contact 29 when the door is opened. Leading into the box body through the outer wall thereof is a conduit 31 corresponding to the conduit 15 of the preferred construction and extending within said conduit through the inner wall of the box body is a conductor 32 corresponding to the conductor 16 of the preferred construction, the conductor 32 being electrically connected with said inner wall of the box body but being insulated from the conduit by insulating rings 33 corresponding to the rings 17 of the preferred construction. Arranged within the box body is a lining 34 of suitable insulating material and extending from the outer wall of the box body through a suitable opening in the inner wall thereof and through said lining is a binding post 35. Mounted upon the inner wall of the box body is a similar binding post 36. Secured within the box body and suitably insulated therefrom is an annunciator, as conventionally shown at 37, one terminal of which is connected with the binding post 35. A plurality of batteries, as conventionally shown at 38 are also arranged within the box body. These batteries are connected in series and, as shown, one lead therefrom is secured to the binding post 36 while the other lead from the batteries is secured to the remaining terminal of the annunciator 37. Thus, the inner and outer walls of the box body are in circuit with the batteries and with the annunciator so that should the door 27 of the box be opened, in an attempt to tamper with the box, the spring contact 30 will, upon engagement thereof with the contact 29, close the circuit and sound the annunciator. Similarly, mutilation of the box such as would cause bridging of the circuit between said walls would also, of course, result in sounding an alarm. As will thus be seen, this modified construction provides an arrangement wherein warning will be given of any attempt to disable the annunciator.

Having thus described the invention, what is claimed as new is:

1. In a grating for window openings, the combination with a wall provided with a window opening having a sill, of vertically spaced transverse rods extending from side to side of said opening and permanently secured at their ends to said wall, hollow vertical bars sustained by said rods in fixed position within the opening and extending at their lower ends through said sill, a conduit embedded in said wall beneath the sill and having the bars connected thereto with their lower ends communicating with the interior of the conduit, a conductor extending longitudinally through said conduit and having branch conductors extending upwardly into said bars, and means normally insulating said conductor and its branches with respect to the conduit and said bars

2. In a window guard construction, the combination with a wall provided with a window opening having a sill at its lower end, a hollow conduit of conductive material embedded in the wall beneath the sill and extending in the direction of the width of the window, hollow bars of conductive material disposed vertically in the window opening and passed through openings formed vertically in said sill and attached at their lower ends to said conduit in spaced relation to each other longitudinally of the conduit, said bars having their lower ends open and communicating with the interior of said conduit, a conductor extending longitudinally through said conduit and insulated therefrom, branch arms extending from said conductor into said bars, and collars of insulating material fitted about said branch arms to insulate the same from the bars.

In testimony whereof they affix their signatures.

ANDREW P. KELLER. [L. S.]
JOHN V. SCHLERETH, JR. [L. S.]