

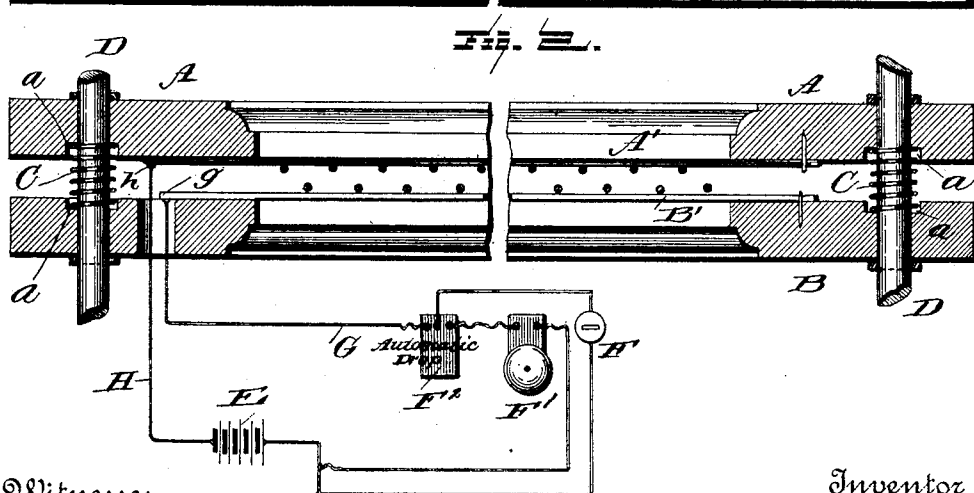
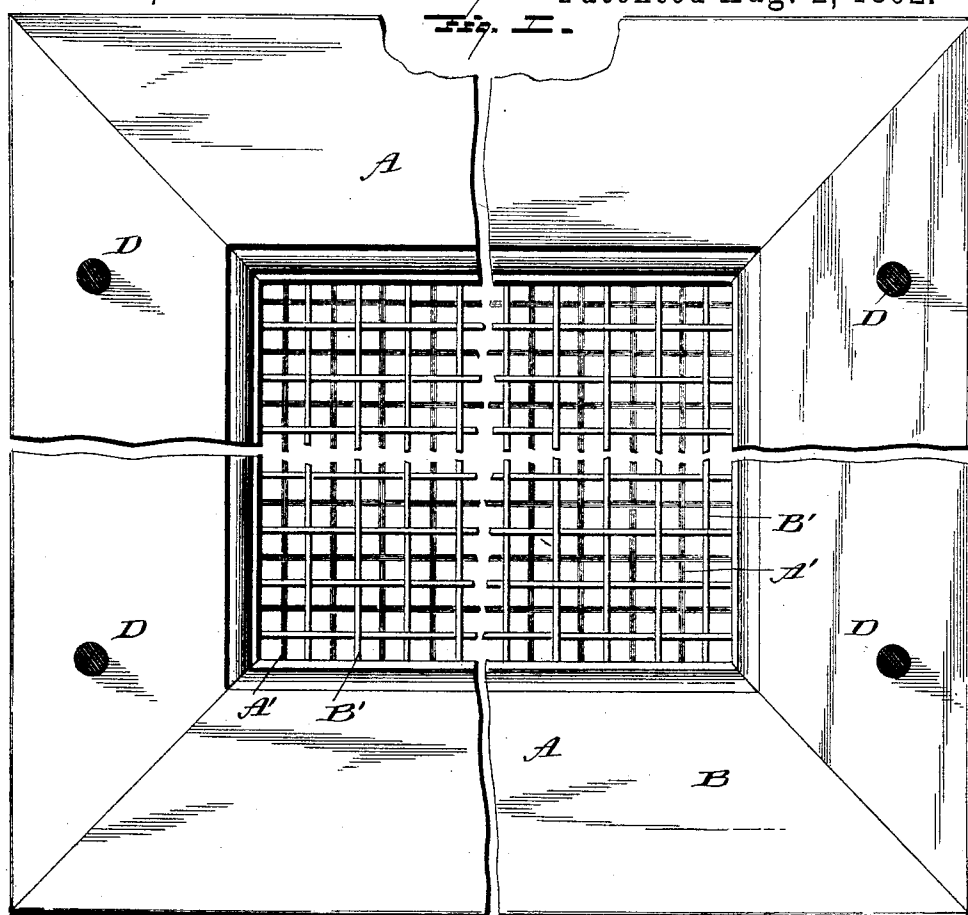
(No Model.)

W. S. HULL.

ELECTRIC SCREEN FOR DOORS OR WINDOWS.

No. 480,100.

Patented Aug. 2, 1892.



Witnesses

L. C. Hills.
E. W. Bond

Inventor

William S. Hull.

by E. B. Stollery
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM S. HULL, OF SHEFFIELD, ALABAMA.

ELECTRIC SCREEN FOR DOORS OR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 480,100, dated August 2, 1892.

Application filed February 3, 1892. Serial No. 420,180. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HULL, a citizen of the United States, residing at Sheffield, in the county of Colbert, State of Alabama, have invented certain new and useful Improvements in Electric Screens, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in electric window or door guards and screens for jails, banks, and other buildings or structures.

It has for its object, among others, to provide a screen or guard which will serve not only to guard the window or opening, but which will give an alarm upon an attempt to force the same, or, in case of a jail-guard, sound an alarm in case a tool is passed through the meshes thereof to the occupant of the cell. The guards or screens may be placed outside or inside the sash. They may be used to fill up the entire opening or any part thereof, and are designed to be attached to the frame in any of the usual ways. The screening or netting may be of any kind of metal, but preferably galvanized iron. The screen is made in two parts with the netting of each part or screen placed face to face and near together. The screening is preferably attached to wood frames of any suitable design. The two parts are kept from coming in contact with each other by light springs or other suitable devices; but a slight pressure against either the outside or the inside will bring the wire of one screen in contact with the wire of the other screen. The wire-netting of one screen is connected electrically with a conducting-wire, battery alarm-bell, or other sounding piece or pieces, and the wire-netting of the other screen will also be so connected with the same apparatus that when the two screens are by any means brought in electrical contact it will close an electric circuit and cause an alarm to be given on the bell or other sounding-piece. For instance, if the mesh of the screening is large enough to push metal tools through and the tool touches the wire of both screens at the same time the electrical contact is made the circuit is completed and the alarm is given, or if a pressure to force any instrument through the window is exerted the springs that hold the screens apart will yield,

the two screens will come together, the circuit will be closed, and the alarm sounded. When a very fine mesh of screening is used it will serve the double capacity or function of keeping flies and mosquitoes out and also give an alarm if an effort is made by burglars to enter the building or of friends of prisoners in a jail to pass tools into the building. The double screens may sometimes be set rigid, so that they cannot come together; but the passage of tools through in touching the two screens at the same time will cause an alarm. The screening of the two screens will be so arranged, particularly when the same is of coarse mesh, that the bars or wires thereof will be in different planes.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation, with portions broken away, showing my improvements. Fig. 2 is a part section and part diagrammatic view.

Like letters refer to like parts in both views.

Referring now to the details of the drawings by letter, A designates the frame of the rear screen, and B the frame of the front screen, the openings in which are covered by the metal screenings A' and B', respectively, the said screenings being arranged in some instances with the wires of the two alternating, as seen in both views, so as to provide smaller interstices with larger mesh screening. These screens and frames are supported within the openings, so as to be movable either one toward the other. They are normally held a slight distance apart by any suitable means, such as springs C on the rods D, which are suitably supported in the structure and on which rods the frames are designed to slide. The adjacent faces of the screens may be provided with sockets a to form seats for the spring, as seen in Fig. 2. These springs should be of such tension that while normally holding the screens apart they will yield to slight pressure to allow the two to be brought together, it being understood, of course, that

the screenings of the two screens are arranged face to face.

E is a battery. FF' F² are the instruments—
a switch, a bell, and an automatic drop, re-
spectively—for sounding the alarm when the
two screens are brought into electrical con-
tact. G and H are the battery-wires, and *gh*
their points of connection with the screens.
(See Fig. 2.)

The operation will be readily understood
from the foregoing description, when taken
in connection with the annexed drawings, and
a detailed description thereof is not deemed
necessary.

What I claim is—

1. A guard or screen consisting of two nor-
mally-separated screens supported to slide
bodily toward and from each other, and a
sounding device electrically connected with
said screen, as set forth.

2. A guard or screen composed of two sec-
tions arranged face to face and normally sep-
arated and slidingly supported with inter-

posed springs, and a sounding device and
battery electrically connected with said sec-
tion, as set forth.

3. A guard or screen composed of two sec-
tions arranged with the screenings face to face,
normally separated and slidingly supported
with interposed springs, combined with a
sounding device and battery connected with
the screening of said section, as set forth.

4. A screen or guard composed of two frames
provided with screenings upon their adjacent
faces, said screenings being alternately ar-
ranged as to their wires, the two frames being
normally separated, spring-held, and slidingly
supported, combined with a sounding device
and battery connected with the said screen-
ings, substantially as described.

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

WILLIAM S. HULL.

Witnesses:

HEATH SUTHERLAND,
L. C. HILLS.