(No Model.)

R. HAMMILL.

SHUTTER.

No. 332,655. Patented Dec. 15, 1885.

Fig. 1.

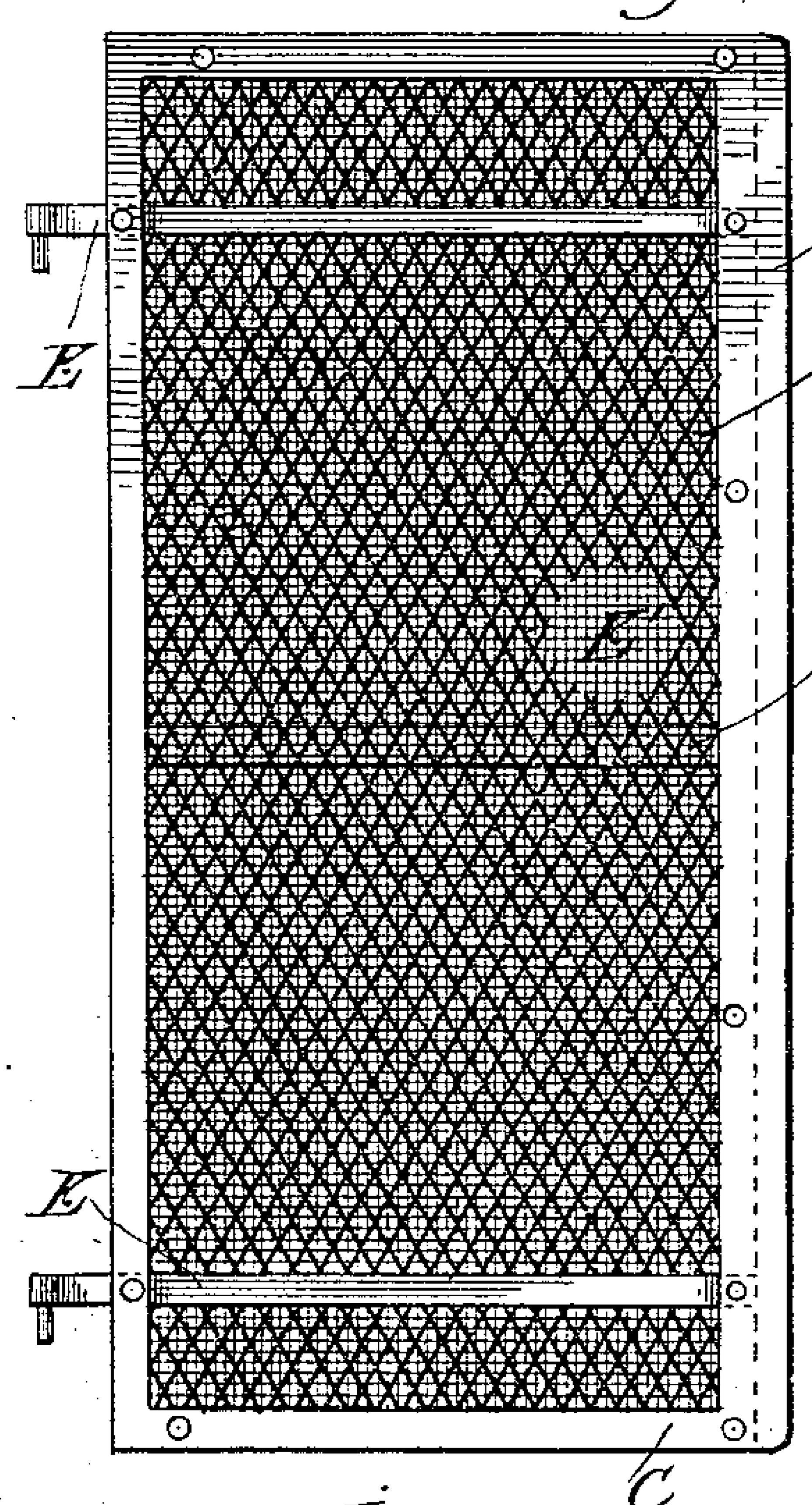


Fig. 5.

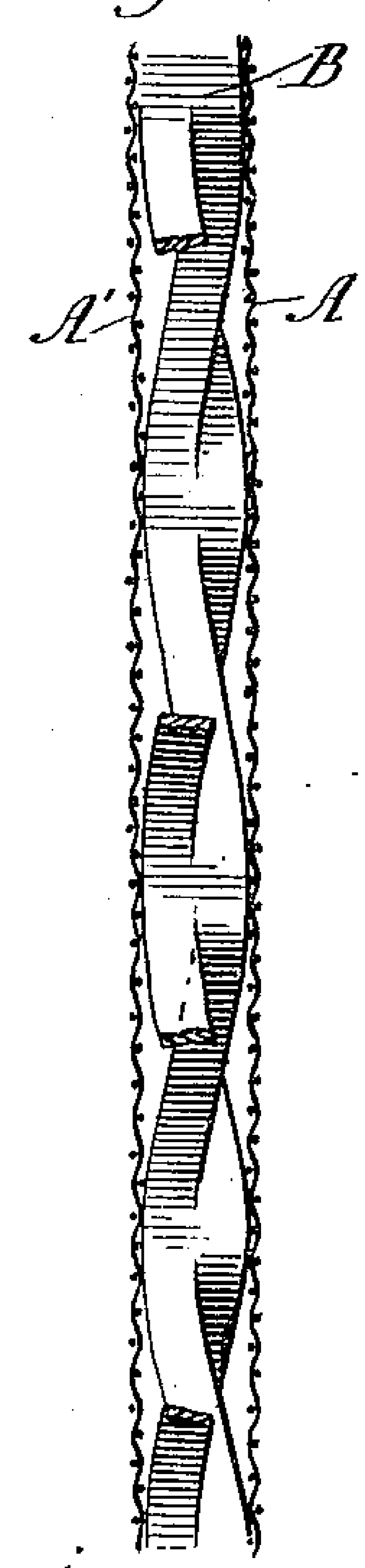


Fig. 2.

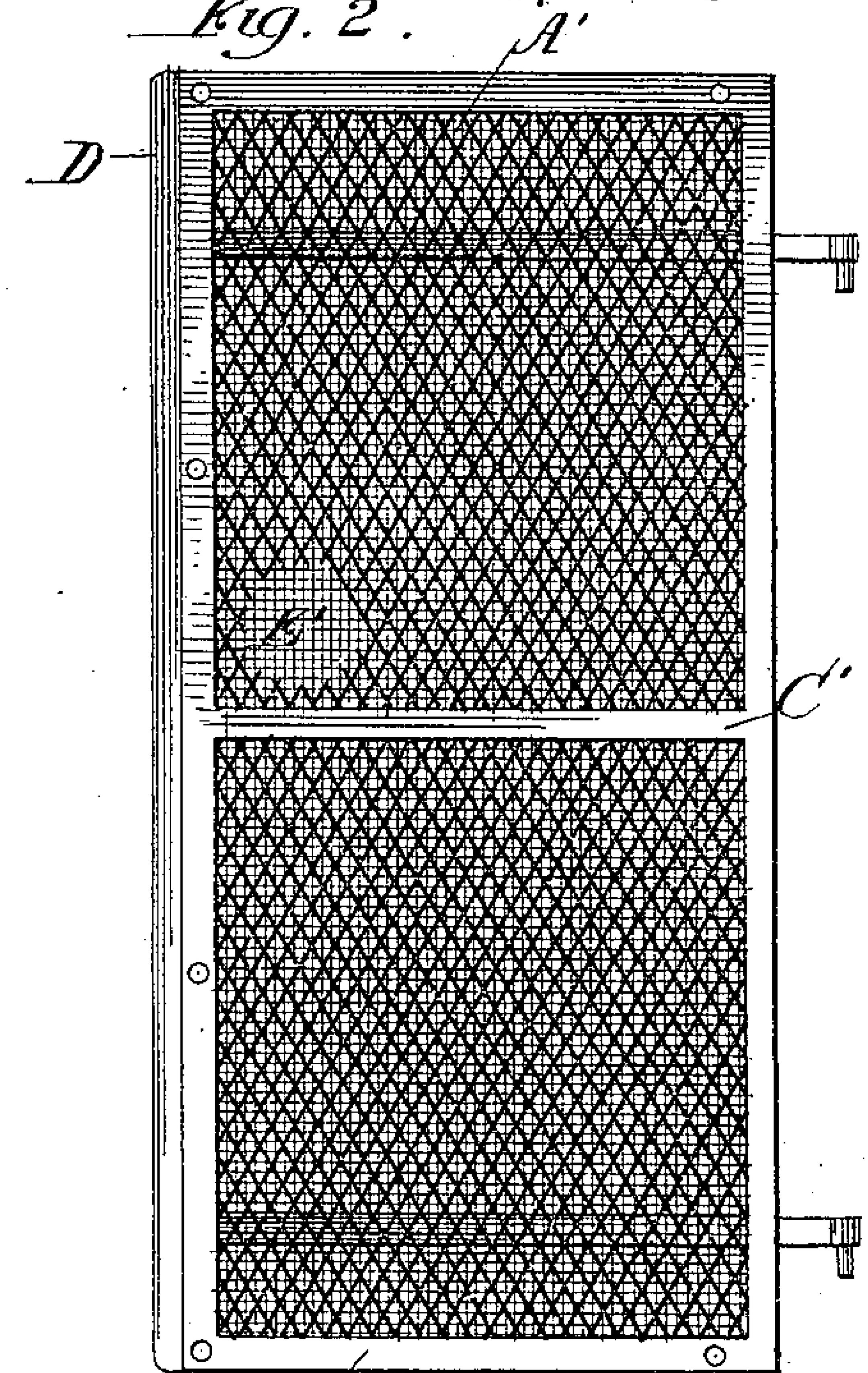


Fig. 3.

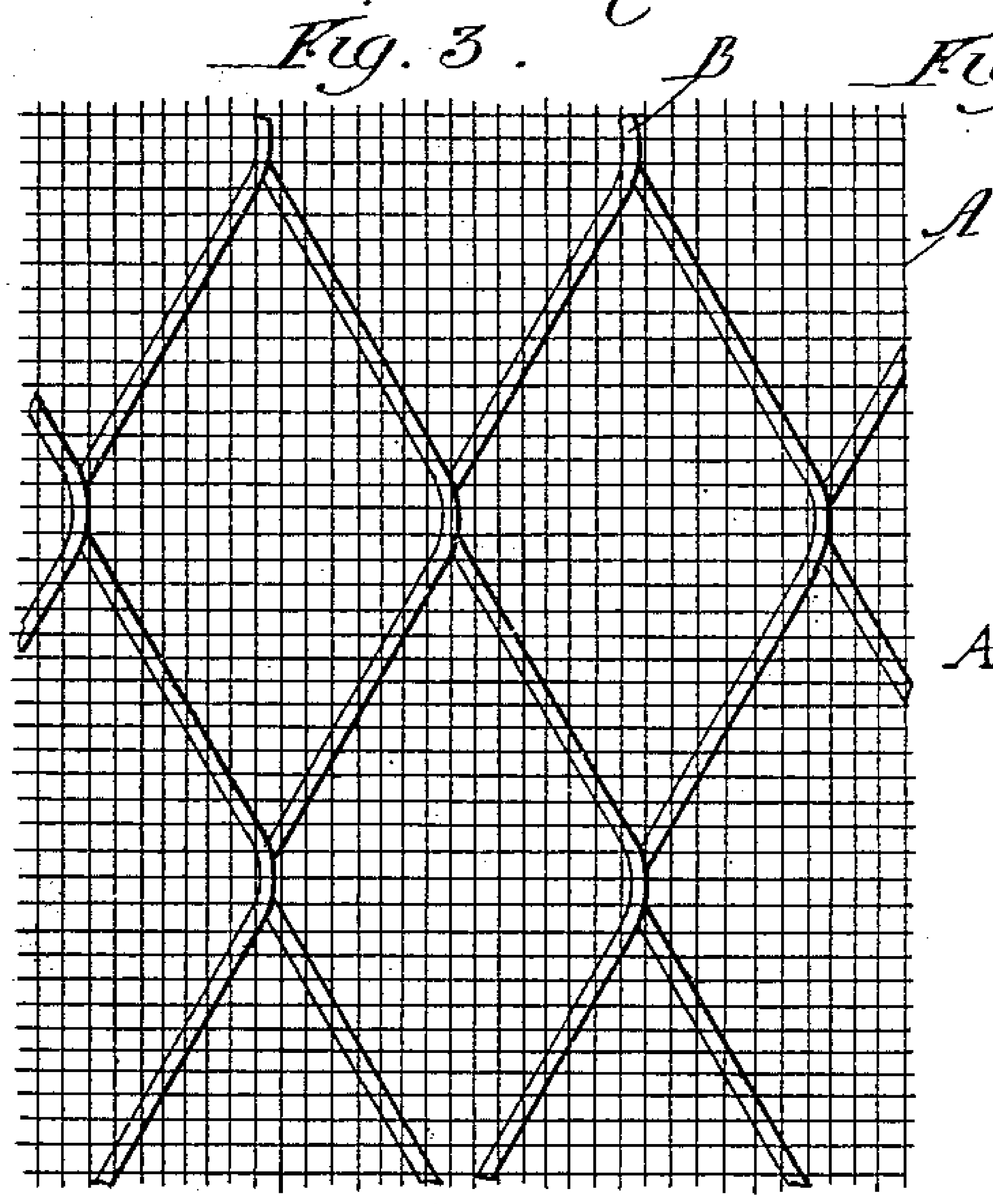


Fig. 6.

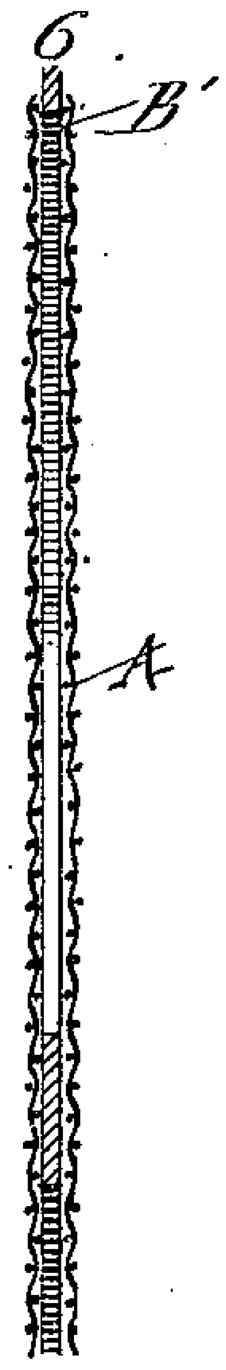
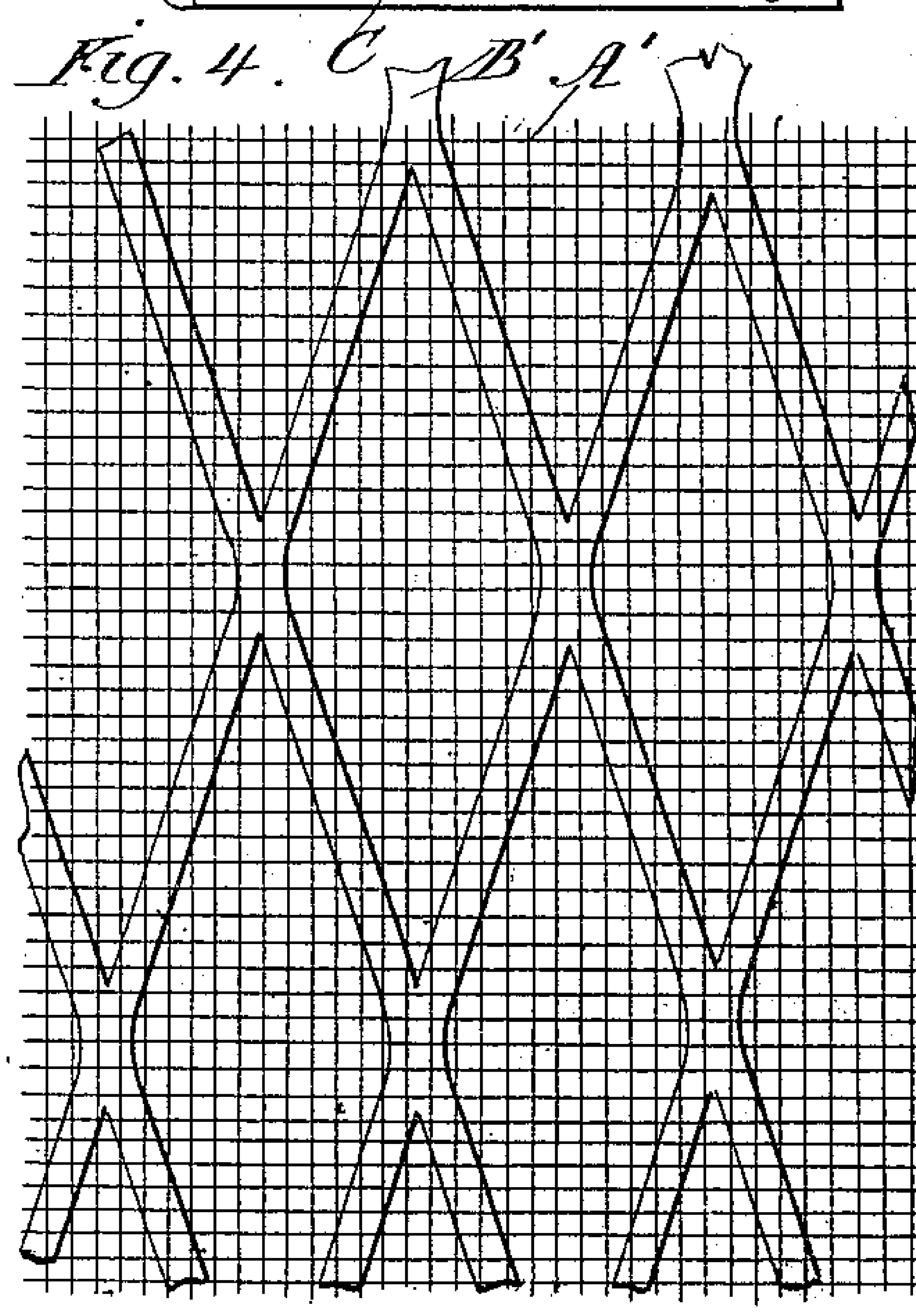


Fig. 4.



Witnesses:

Frank J. Blanchard

Louis Nolting.

Inventor:

Richard Hammill

By Wm. H. Lotz & Co.

Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

RICHARD HAMMILL, OF CHICAGO, ILLINOIS.

SHUTTER.

SPECIFICATION forming part of Letters Patent No. 332,655, dated December 15, 1885.

Application filed May 5, 1885. Serial No. 164,500. (No model.)

To all whom it may concern:

Be it known that I, RICHARD HAMMILL, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shutters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to new and useful improvements in fire-proof shutters.

The object of my invention is to provide a shutter which, in addition to being light and cheap, will successfully withstand the action of heat, and at the same time afford ready access for firemen's hose.

The invention further has for its object the rendering of the shutter perfectly burglar-proof.

To the accomplishment of the objects named the invention consists in forming the shutter of two wire screens and an iron mesh interposed between the two, the several parts being held together by a suitable frame.

The invention further consists of forming a suitable opening in the interposed iron mesh, through which the fireman can insert the nozzle of his hose after breaking away that part of the wire screens; and the invention further consists in the general construction of the shutter and the arrangement of the holding-frames and hinges, as will be described.

Reference will be made to the accompanying drawings, in which Figure 1 is a front view of a shutter; Fig. 2, a rear view of the same; Fig. 3, an elevation on an enlarged scale of the wire screens and iron mesh; Fig. 4, a similar view showing a different arrangement of the iron mesh; Fig. 5, a vertical section through Fig. 3, and Fig. 6 a similar view through Fig. 4.

Like letters refer to like parts in each view.

In the drawings, A A′ represent the two wire screens, and B B′ two different styles of iron meshes interposed between said screens. Screens A A′ may consist of two separate pieces of wire-cloth, or they may be formed of a single piece suitably bent to inclose the iron mesh, the latter arrangement being preferable.

The iron mesh may be formed in any suitable manner, provided it has the one quality of being strong; but I prefer to use a mesh formed from a single sheet or strip of metal provided with slits so arranged that the spaces between the slits of one line will be overlapped by the slits formed in the next line, the strip of metal being then stretched or pulled out to form the meshes, as shown in Figs. 3 and 5. In this manner of forming the mesh the edges of the mesh will be presented, and thus far in its construction I make no claim, as the same has been used. It is, however, desirable at times to flatten or roll the metal after the mesh has been formed, as shown in Figs. 4, 5.

It will be understood that, although I show and claim herein a shutter provided with a mesh made as above described, I do not claim in this application the article of manufacture itself.

The wire screens and iron mesh, after being placed in position, are inclosed in two metal frames, C, consisting of suitable uprights and bottom and top cross-pieces. One frame C may also be provided with a central cross-piece, C′. These frames are suitably riveted together, and one is provided with a strip, D, adapted when the two are closed to overlap the remaining shutter and form a tight joint. The hinge-straps E are placed between one screen and one frame, and, after being carried inwardly past the frame, are bent upwardly and extended across the face of the shutter, and then bent downwardly and inserted between the opposite upright and the screen.

An open air-space of the thickness of the iron mesh is provided.

The iron mesh may be broken away to form an opening, E′, covered by the screen, or left entirely open. When left open, it may be formed near the shutter-latch; but preferably, when covered by the screens it should be away therefrom. The fireman can break the screen and insert his hose, being at the same time protected.

What I claim is—

1. A window-shutter composed of two wire screens, an interposed iron mesh, and frames, as set forth.

2. A window-shutter composed of two wire screens, an interposed iron mesh formed from slit and stretched metal, and suitable frames, as set forth.

3. A window-shutter composed of two wire

screens, an interposed iron mesh formed from slit, stretched, and flattened metal, and suitable frames, as set forth.

4. A window-shutter composed of two wire screens, an interposed iron mesh, partly broken away, and suitable frames, as set forth.

5. A window-shutter composed of two wire screens, an interposed iron mesh, suitable frames, and hinge-straps extending across the face of the shutter, as set forth.

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

RICHARD HAMMILL.

Witnesses:

M. J. CLAGETT,
LOUIS NOLTING.