

W. S. MACKRELL.  
Metallic Window Blind.

No. 166,535.

Patented Aug. 10, 1875.

Fig. 1.

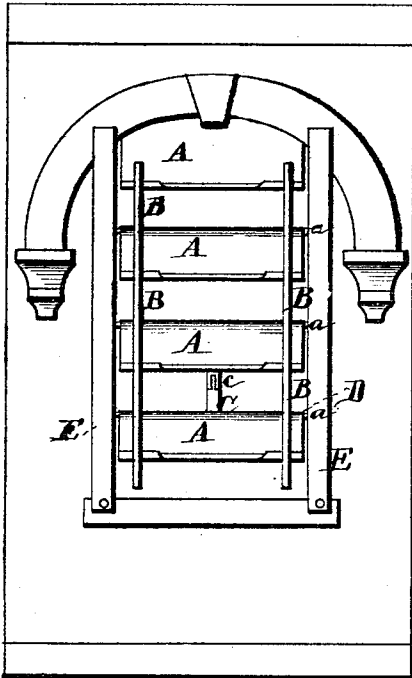
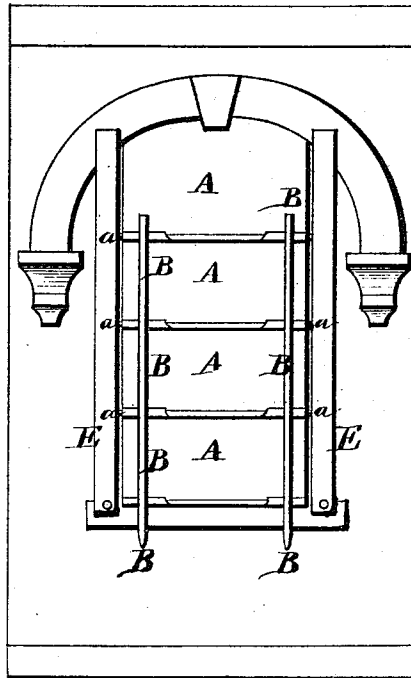


Fig. 2.



WITNESSES.

*W. D. Newman,*

*R. M. Barr*

By

*William S. Mackrell*

INVENTOR

*Leggett & Leggett,*

Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM S. MACKRELL, OF BRENHAM, TEXAS, ASSIGNOR TO HIMSELF,  
WILLIAM B. WILLSON, AND CURTIS T. ROFF, OF SAME PLACE.

## IMPROVEMENT IN METALLIC WINDOW-BLINDS.

Specification forming part of Letters Patent No. **166,535**, dated August 10, 1875; application filed June 1, 1875.

### *To all whom it may concern:*

Be it known that I, WILLIAM S. MACKRELL, of Brenham, in the county of Washington and State of Texas, have invented certain new and useful Improvements in Fire-Proof Window-Blinds; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in fire-proof window blinds or shutters; and consists in the appliances and devices hereinafter specified and claimed.

It is well known that extensive conflagrations frequently occur by means of the interior casings of the windows of adjacent buildings being inflamed from a neighboring building.

I have discovered a blind which acts both as a barrier to the progress of flames attacking windows and as a convenient shutter for the common purposes, and is adapted to be adjusted and securely locked in an open or closed position, as hereinafter more fully set forth and claimed.

The material of my invention may be of any suitable substance to resist the action of flames; but I prefer wrought-iron or cast-iron.

In the drawings, Figure 1 represents my shutter as open; Fig. 2, when closed.

A are sections, which are hung vertically instead of longitudinally, as is the old practice, and are fastened by cross-bars *a* extending across the window. B are two vertical cleats attached in any suitable manner to the sections A. C is an arm or bar provided with an elbow-joint, *c*, placed at any suitable distance thereon, by means of which the bar may be flexed at an angle, so as to cause any one of the little notches *c'*, with which said bar is provided, to be readily engaged with the cross-

bar D, and thus secure the shutter at any desired opening, as well as when the shutter is closed, to be turned down completely, so that, as one of the notches *c'* seats itself in the cross-bar D, it may form a safe and secure lock for the blind, which can only be opened by an approach from the interior.

There may be any number of these little notches *c'*, to correspond with the necessity or desire of the case; but the last notch nearest the section A, to which the arm is attached, should be so situated that when it connects with the cross-bar it will cause the shutter to be closely engaged with the window-casing.

E are any suitable cleats on the sides of the window, to which the cross-bars D are attached.

The operation of my invention is readily seen.

The shutter is more easily closed and opened than if the sections or leaves were hung vertically, since oftentimes the wind or other elements interfere with their proper operation, while by my invention a person from the interior, without exposing himself to the weather, may promptly close the shutter; also, blasts and gusts of wind do not cause an obstruction to the closing.

By means of the arm C any desired opening may be effected and securely maintained.

What I claim as new, and desire to secure by Letters Patent, is—

The fire-proof window-blind consisting of horizontal leaves or sections A, vertical cleats B, and locking-arm C, all arranged substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of May, 1875.

WILLIAM S. MACKRELL.

Witnesses:

JOHN DOOLAN,  
T. J. NEWMAN.