

The specifications in this patent
do not in print.

J. B. & W. W. Cornell.

Window Shutter.

Nº 28,269.

Patented May 15, 1860.

Fig. 1

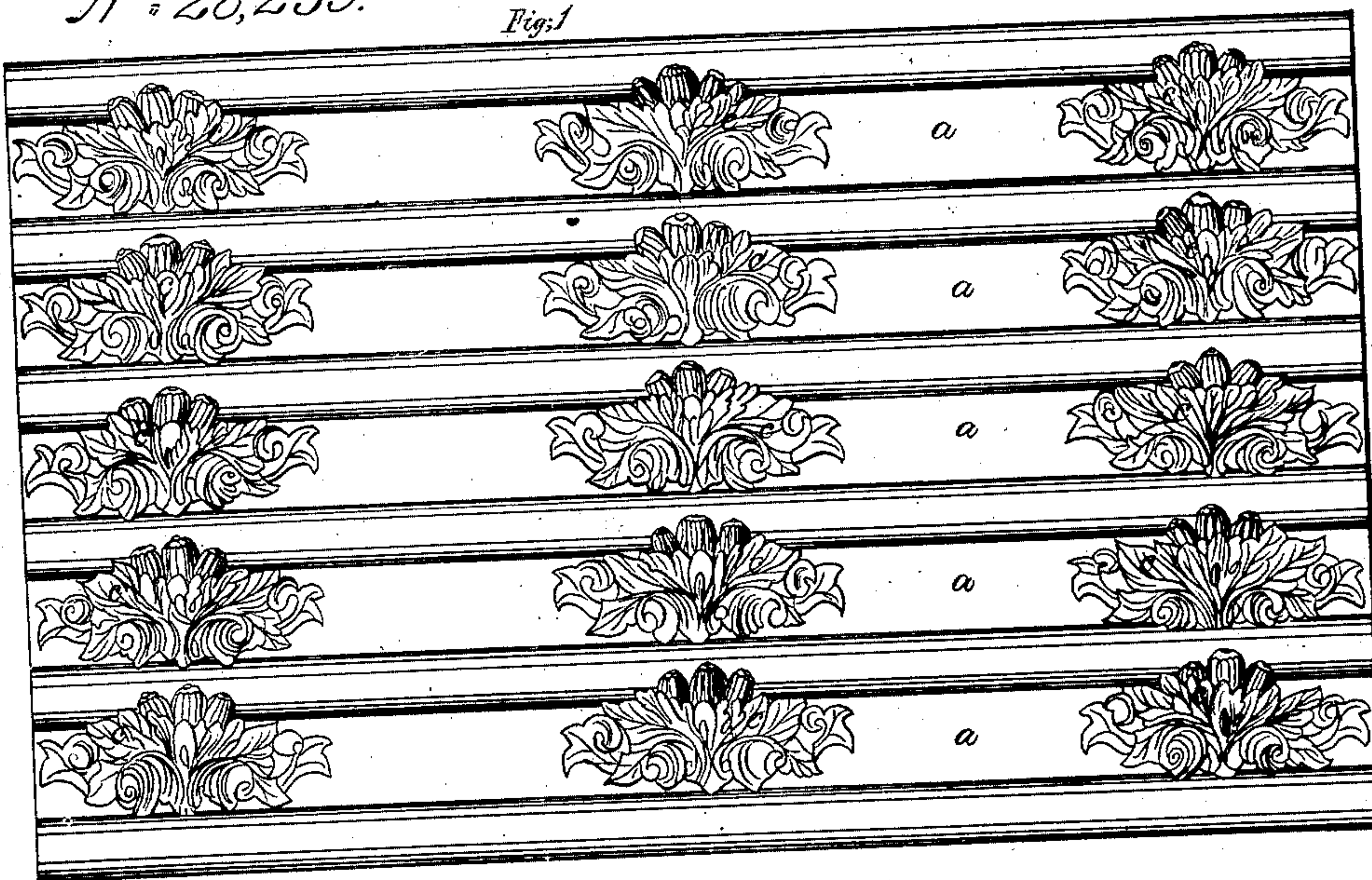


Fig. 2.

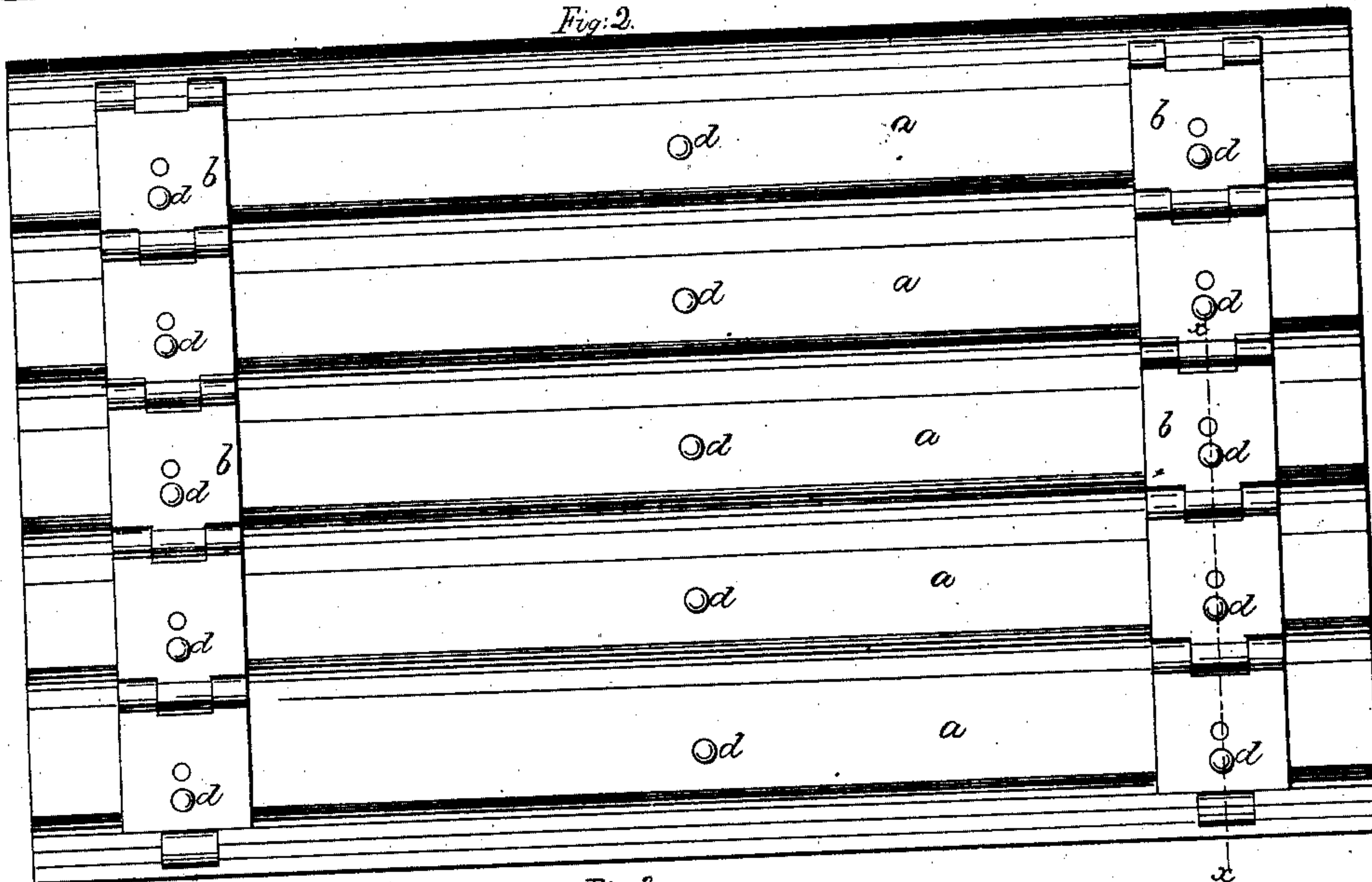


Fig. 3.



UNITED STATES PATENT OFFICE.

JOHN B. CORNELL AND WM. W. CORNELL, OF NEW YORK, N. Y.

ROLLING SHUTTER.

Specification of Letters Patent No. 28,259, dated May 15, 1860.

To all whom it may concern:

Be it known that we, JOHN B. CORNELL and WILLIAM W. CORNELL, of the city, county, and State of New York, have invented a new and Improved Rolling Metallic Shutter; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings which form a part of this specification.

Figure 1, being a front view of our improved shutter; Fig. 2, a rear view of the same, and Fig. 3, a section in the line *x, x*, of Fig. 2.

Similar letters indicate corresponding parts in each of the drawings.

The edges of the metallic slats *a, a*, in our improved rolling shutters, are of a uniform outwardly curving sector-shape, and they are combined with each other by means of hinged-plates *b, b*, whose hinge-pivots are concentric with the curved edges of said slats; the shape, arrangement, and combination of the thin metallic slats of our improved rolling shutter, being substantially the same that is set forth in the patent which was issued to John B. Cornell September 12th 1854.

The rolling shutters which have been manufactured in accordance with the directions in the aforesaid patent of John B. Cornell, have been found to be faulty in the following particulars, viz:—

First. Unless the sheet-metal slats employed in the manufacture of said shutters are otherwise unnecessarily thick and heavy, the rivets which combine the said slats with the hinge-plates, are liable to have their heads drawn through the slats; and if the rivet heads are not drawn through the slats by the careless handling of the shutters before they are put up, they can afterward be easily driven inward through the same by a punch and mallet in the hands of a burglar.

Second. Unless the hinge-plates of the aforesaid shutter are placed at very short intervals from each other, a large opening can be easily made through the shutter either by slitting one of the slats thereof by a properly tempered cutting instrument, or by prying apart the edges of a pair of slats, and then widening the opening thus made by bending outwards the slats each side of said opening.

Third. In rolling up the aforesaid (John

B. Cornell) shutter, the contact of the sides of the slats thereof against each other soon wears the paint from them and greatly mars the appearance of the shutter, while at the same time portions of the surfaces of the slats of said shutter are exposed to oxydation.

Now all the aforesaid objections to the John B. Cornell rolling shutter, we have completely remedied by riveting cast or stamped metal bosses *c, c*, at frequent intervals to the face of each of the slats of our improved shutter.

First. The portion of the aforesaid bosses which are placed opposite to the hinge-plates *b*, of our improved shutter, are firmly secured in their positions upon the faces of the slats thereof by means of the outward extension into said bosses of the rivets which unite the slats to the hinge-plates; the said bosses forming broad bearing heads for the said rivets upon the slats, and the outer ends of the rivets being countersunk into the bosses, the position of the rivets is entirely concealed by an ordinary coating of paint upon the bosses.

Second. Each boss upon our improved shutter has an overreaching curved projection which is of such a shape that when the boss is riveted in its proper position upon a slat, the said projection will pass over and embrace the overlapping sector-shaped portion of the adjoining slat, as shown in Fig. 2; and consequently it will be perceived that while the bosses upon our improved shutter serve the purpose of preventing the longitudinal slitting of the slats thereof, they also serve the purpose of preventing the overlapping curved edges of the series of slats from being pried outward from the innermost curved edges of said slats.

Third. In rolling up our improved shutter, the bosses upon the face thereof will be brought in contact with each other, and consequently the face of the slats will be protected from the possibility of defacement or injury during said process. And furthermore, by giving an ornamental shape to the bosses upon our improved shutter, it will greatly surpass all other rolling metallic shutters in artistic elegance of appearance.

What we claim as our invention and desire to secure by Letters Patent, is—

1. Preventing the longitudinal slitting of the individual slats of a rolling metallic

shutter by combining a series of bosses with the face of said shutter substantially as herein set forth.

2. We also claim giving the metallic bosses
5 upon the face of our improved rolling shutter such a shape that they will prevent the edges of the slats of said shutter from be-

ing forcibly separated from each other substantially as herein set forth.

JOHN B. CORNELL.

WILLIAM W. CORNELL.

Witnesses:

ADDISON A. SAYRE,
IRA L. CARBY.