G. F. Letz.

Iron Shutter.

No. 246.
31,250.

Patented Jan. 29, 1861.

Fig. 2.

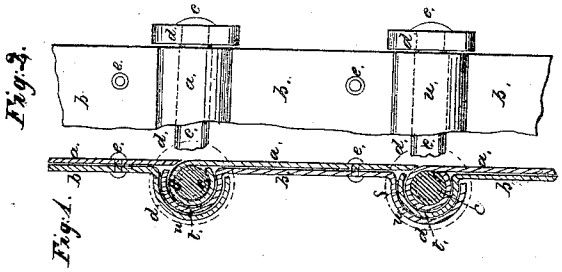
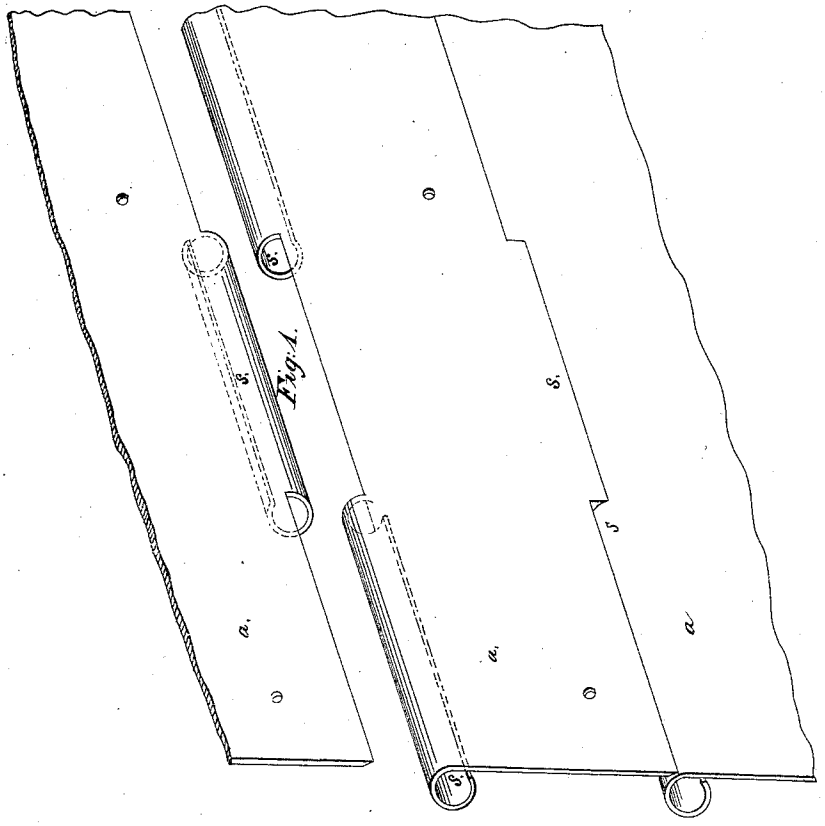


Fig. 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE F. LETZ, OF CHICAGO, ILLINOIS.

ROLLING IRON SHUTTER.

Specification of Letters Patent No. 31,250, dated January 29, 1861.

To all whom it may concern:

Be it known that I, GEORGE F. LETZ, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Rolling Iron Shutters; and I do hereby declare that the folowing is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

The nature of my invention consists in an iron rolling shutter composed of a series of slabs made of two sheets of metal riveted or otherwise secured together; when a portion of the upper or lower edges of the inner sheets *a*, are bent so as to form nearly complete cylinders *s*, and the upper end of the outer sheet *b*, so as to form segments of cylinders *t*, sufficiently large to encompass the circular ends of the sheets *a*, and the lower end of the outer sheets so as to form semi-cylinders *u*, of a capacity sufficient to encompass the interlocked upper ends *s*, *t*, of both the inner and outer sheets.

My invention consists, 2nd, in the combination with the above, of pivot rods *c*, and friction rollers *d*.

My arrangement gives additional strength to the joint and shutter, prevents storms from beating in through the same. It also obviates friction between the shutter and the guide ways in which it moves up and down.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawings where—

Figure 1, represents a sectional end view of the slats showing the manner in which the sheets forming the slats overlap and encircle each other. Fig. 2, shows a part of the slats in front view; also showing the friction rollers on the pivot rods. Fig. 3, represents a part of the shutter in perspective, being the inside of the shutter, also showing the construction of the hinge joint.

a, *a*, represent the inside thickness of the slats; *b*, *b*, the outside thickness; *c*, *c*, the pivot rods; *d*, *d*, the friction rollers; *e*, *e*, the rivets connecting the two thicknesses of the slats together, and *s*, *t*, *u*, the curved ends of the plates.

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

1. The combination in a rolling iron shutter, of the curved ends *s*, *t*, *u*, the said ends being fitted together, substantially in the manner and for the purposes set forth.

2. The combination with the hinge joint *s*, *t*, *u*, of the pivot rods *c*, and friction rollers *d*, substantially as and for the purpose set forth.

GEORGE F. LETZ.

Witnesses:

JOHN M. JOHNSTON,

GEORGE SEESE.