

No. 677,123.

Patented June 25, 1901.

P. EBNER.
FIRE SHUTTER.

(Application filed Nov. 5, 1900.)

(No Model.)

Fig. 1

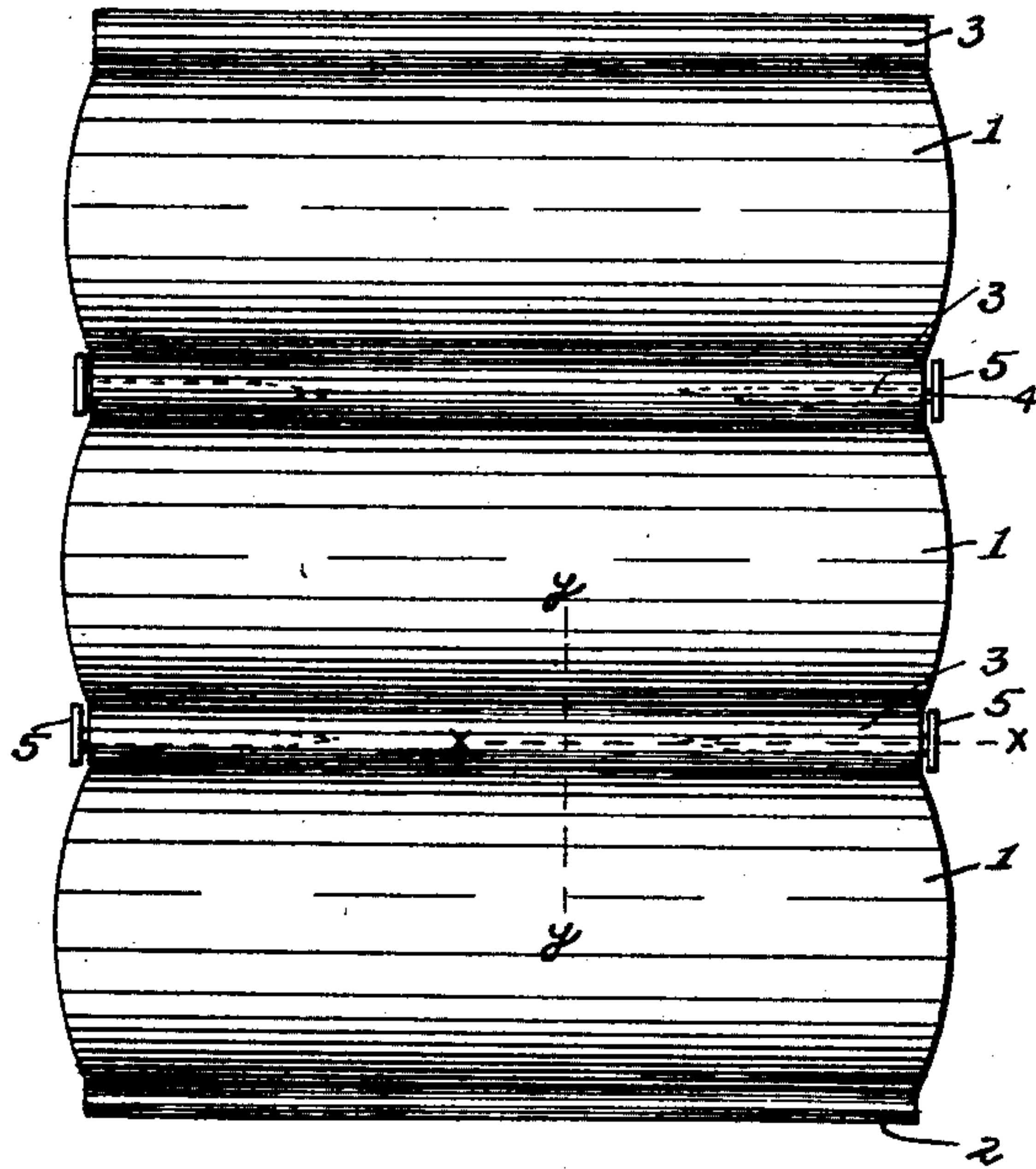


Fig. 2



Fig. 3

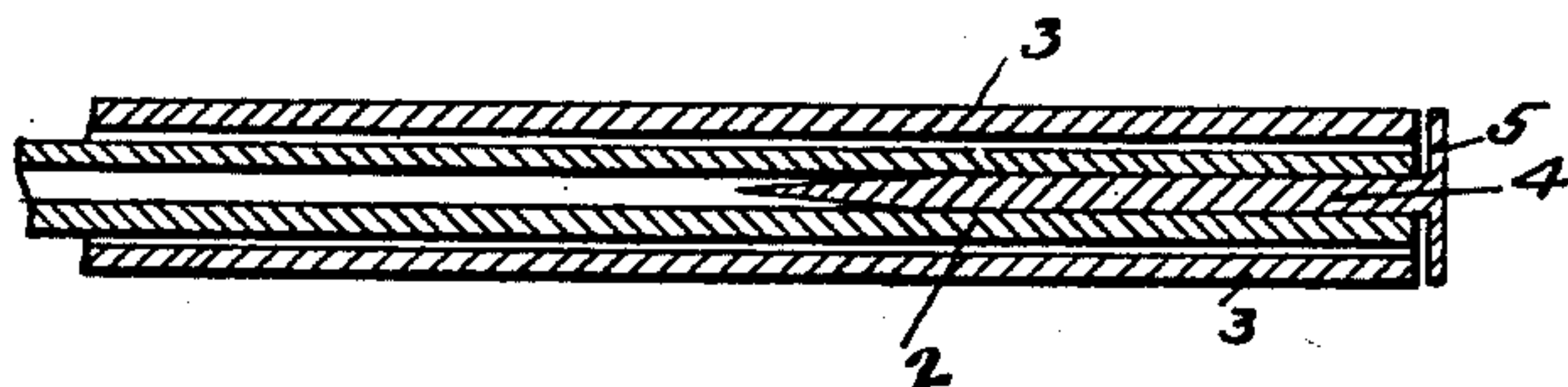
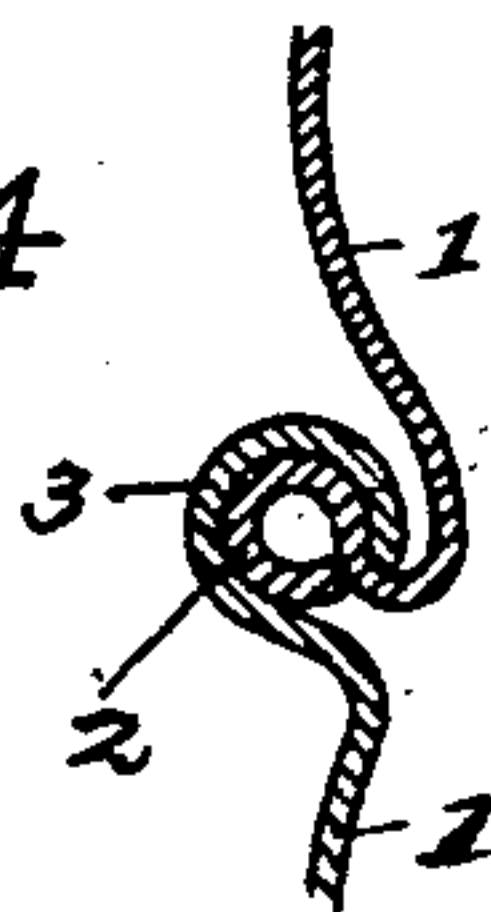


Fig. 4



WITNESSES:

R. L. Hessong.
A. L. Phelps

INVENTOR

Peter Ebner
BY
C. C. Shepherd
ATTORNEY

UNITED STATES PATENT OFFICE.

PETER EBNER, OF COLUMBUS, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO HOWARD BLACK, OF PLAIN CITY, OHIO.

FIRE-SHUTTER.

SPECIFICATION forming part of Letters Patent No. 677,123, dated June 25, 1901.

Application filed November 5, 1900. Serial No. 35,442. (No model.)

To all whom it may concern:

Be it known that I, PETER EBNER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Fire-Shutters, of which the following is a specification.

My invention relates to the improvement of fire-shutters which consist of hinged or jointedly-connected metallic sections, and has particular relation to the improvement of that class of fire-shutters shown in Patent No. 655,965 of August 14, 1900.

The object of my invention is to provide a shutter of this class with improved means for preventing an independent lateral motion of the sections or metallic strips which form the shutter. This object I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a face view of a portion of one of my improved shutters, consisting of three sections, said sections being provided with my improved means for preventing an independent lateral or longitudinal sliding movement of the sections. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged detail sectional view on line *xx* of Fig. 1, and Fig. 4 is an enlarged view on line *yy* of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

1 represents the parallel metallic strips or sections forming the shutter. As in said former patent, one of the longer edges of each of said strips is throughout its length provided with an outturned hook-bend, which terminates in a comparatively small upward and inward tubular roll 2. The remaining longer edge portion of each of the strips 1 is, as indicated in the drawings, provided throughout its length with an outwardly-bent and at the same time slightly-inclined longitudinal hook portion 3.

The sections or strips forming the shutter-body are adapted to be hinged together, as indicated, by inserting the edge portion 2 of one section into the rounded seat or channel formed by the production of the hook portion

3. The sections being thus hinged together and it being desired to prevent their becoming disengaged or moving longitudinally each end of each of the hook portions 2 has driven or forced therein the body or stem of a nail or stop-pin 4, said stop-pin stem being of such size as to insure its retention in engagement with the said hook portion 2. Each of the stop pins or nails 4 is provided on its outer end with an enlarged head portion 5, with the inner surface or side of which is adapted to contact or abut the end of the hook portion 3 of the adjoining shutter-section in case of a tendency of the latter to move longitudinally. As in said former patent mentioned, it will be observed that each of the sections is preferably of a concavo-convex form and that the portions of said sections which form the hinge or joint connections of the same are so inclined as to shed rain or snow or prevent the same from entering the joints.

From the construction above described it will be seen that the sectional shutter is provided with simple and inexpensive means for preventing an independent lateral movement of these sections and at the same time admitting of the coiling of said sections upon a roller in the usual manner.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a fire-shutter the combination with the shutter-sections 1, each of said sections having its longer edges provided respectively with a comparatively large and small hook projection, the smaller hook projection of one section being adapted to work within the larger hook projection of an adjoining section, of stop-pins 4 having enlarged heads 5, the stems of said stop-pins being driven into the end portions of said smaller hook projections after the sections are united, substantially as specified.

PETER EBNER.

In presence of—

C. C. SHEPHERD,
A. L. PHELPS.