No. 757,106. PATENTED APR. 12, 1904.

W. B. GERVAIS.

ROLLING SHUTTER.

APPLICATION FILED AUG. 25, 1902.

NO MODEL.

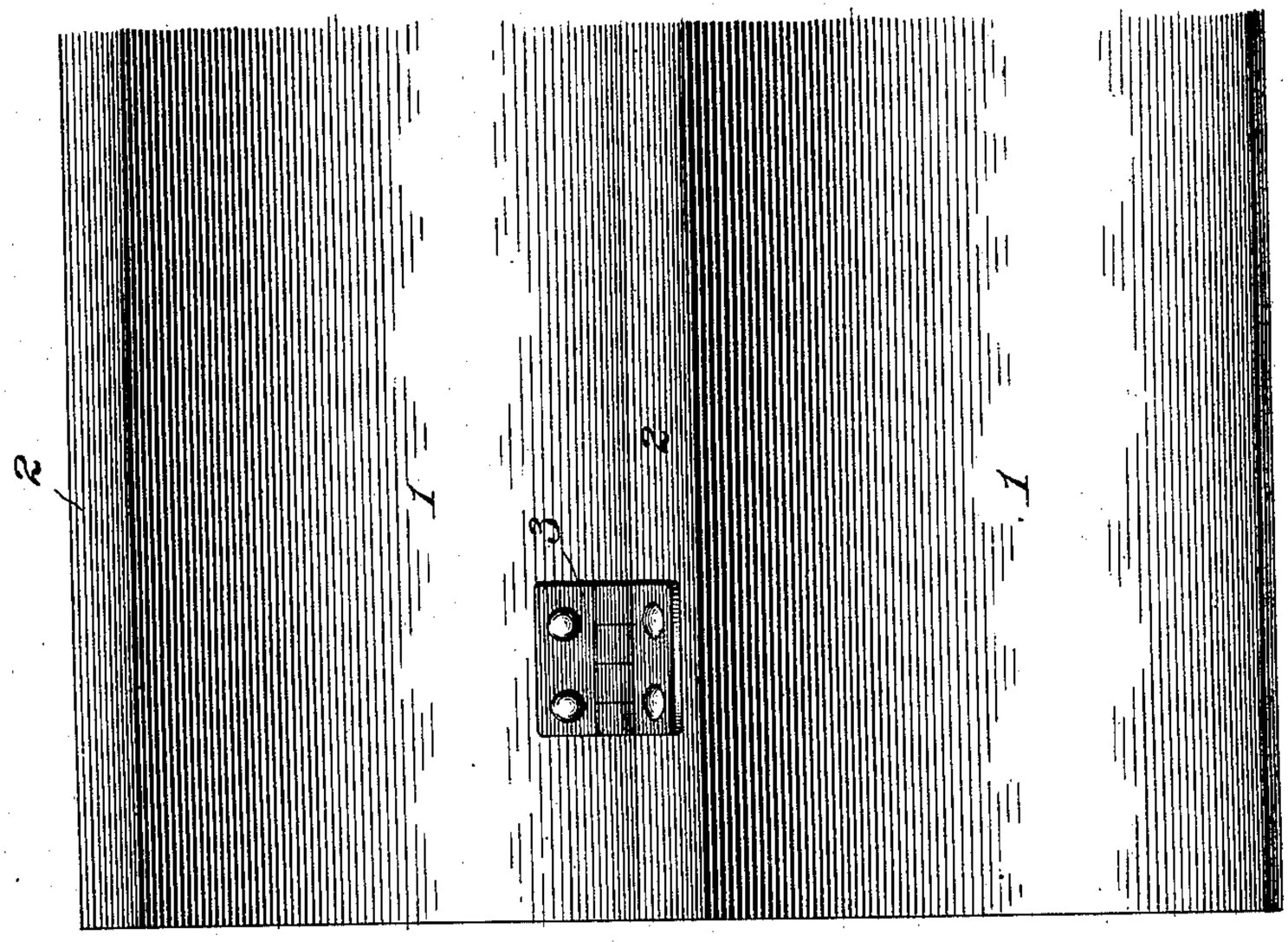

Fig. 2.

Fig. 1.

Attest:

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No. 757,106. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

WAINRIGHT B. GERVAIS, OF CHICAGO, ILLINOIS.

ROLLING SHUTTER.

SPECIFICATION forming part of Letters Patent No. 757,106, dated April 12, 1904.

Application filed August 25, 1902. Serial No. 120,919. (No model.)

To all whom it may concern:

Be it known that I, WAINRIGHT B. GERVAIS, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rolling Shutters, of which the following is a specification.

The present invention relates to that type of rolling metal shutters formed by a series of slats hinged together, so as to be capable of compactly rolling together upon a winding-roll, and has for its object to provide a simple and efficient construction and connection of the series of slats composing the shutter, to adapt the same to roll very compactly upon the winding-roll, and which affords a rain and weather proof connection at the joining edges of the series of slats, all as will hereinafter more fully appear, and be more particularly pointed out in the claims. I attain such object by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a fragmentary end elevation of a folding shutter embodying the present invention; Fig. 2, a fragmentary rear elevation of the same.

Similar numerals of reference indicate like parts in both views.

Referring to the drawings, 1 represents the sheet-metal slats composing the folding shutter, and which in the present improvement are of a segmental trough form, as shown, so as to adapt them to fold compactly together when wound upon the usual winding-drum employed in the present class of folding shutters.

2 represents individual flanges, preferably arranged at the upper edge of the respective slats 1, composing the shutter, and extending the full length of the slats. Such flanges are inclined away from the main body of the slats in an opposite direction and at substantially the same curve or angle from a common base-line as the curve or angle of the body portion with relation to said base-line, so that when the series of slats are in an unfolded condition the individual flanges 2 of the series of slats will lie snugly against the lower and inner surface of the next adjacent slat above, as clearly illustrated in Fig. 1 of the drawings, to afford a substantially rain and weather tight joint between the meeting edges of each pair of slats.

3 represents hinges of any ordinary and suitable construction the pintle-eyes of which are arranged immediately adjacent to the free ends of the flanges 2, with the respective leaves of said hinges riveted or otherwise secured to said flanges and to the body portion of the next adjacent slat, as illustrated in Figs. 1 and 2.

It is within the province of the present invention to depart from the curved or segmental form of the slats shown in the drawings, where the circumstances or judgment of the constructor may suggest, the novel and material feature of the present invention consisting, mainly, in the above-described angular arrangement of the flanges 2 with relation to the body portion 1, in connection with the precise arrangement and location of the hinges 3, hereinbefore described, as from extended practical test it has been found that such structural arrangement of parts is adapted to permit the shutter to roll up into a very compact shape upon its carrier-drum and to unroll in a very even and uniform manner.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rolling shutter of the character herein described, comprising in combination a series of sheet-metal slats having a trough form and provided with flanges at one edge which extend the length of the slats and are inclined away from the body portion of the slats in an opposite direction and at substantially the same angle from a common base-line, and connecting-hinges the pintle-eyes of which are arranged adjacent to the outer edges of the aforesaid flanges, for the purpose set forth.

2. A rolling shutter of the character herein described, comprising in combination a series of sheet-metal slats having a segmental trough form and provided with flanges at one edge which extend the length of the slats and are

curved away from the segmental body portion of the slats in an opposite direction and at substantially the same curve or angle from a common base-line, and connecting-hinges the pintle-eyes of which are arranged adjacent to the outer edges of the aforesaid flanges, for the purpose set forth.

Signed at Chicago, Illinois, this 19th day of August, 1902.

WAINRIGHT B. GERVAIS.

Witnesses:
ROBERT BURNS,
HENRY A. NOTT.