L. LANE.

LOUVER OR SLAT WINDOW.

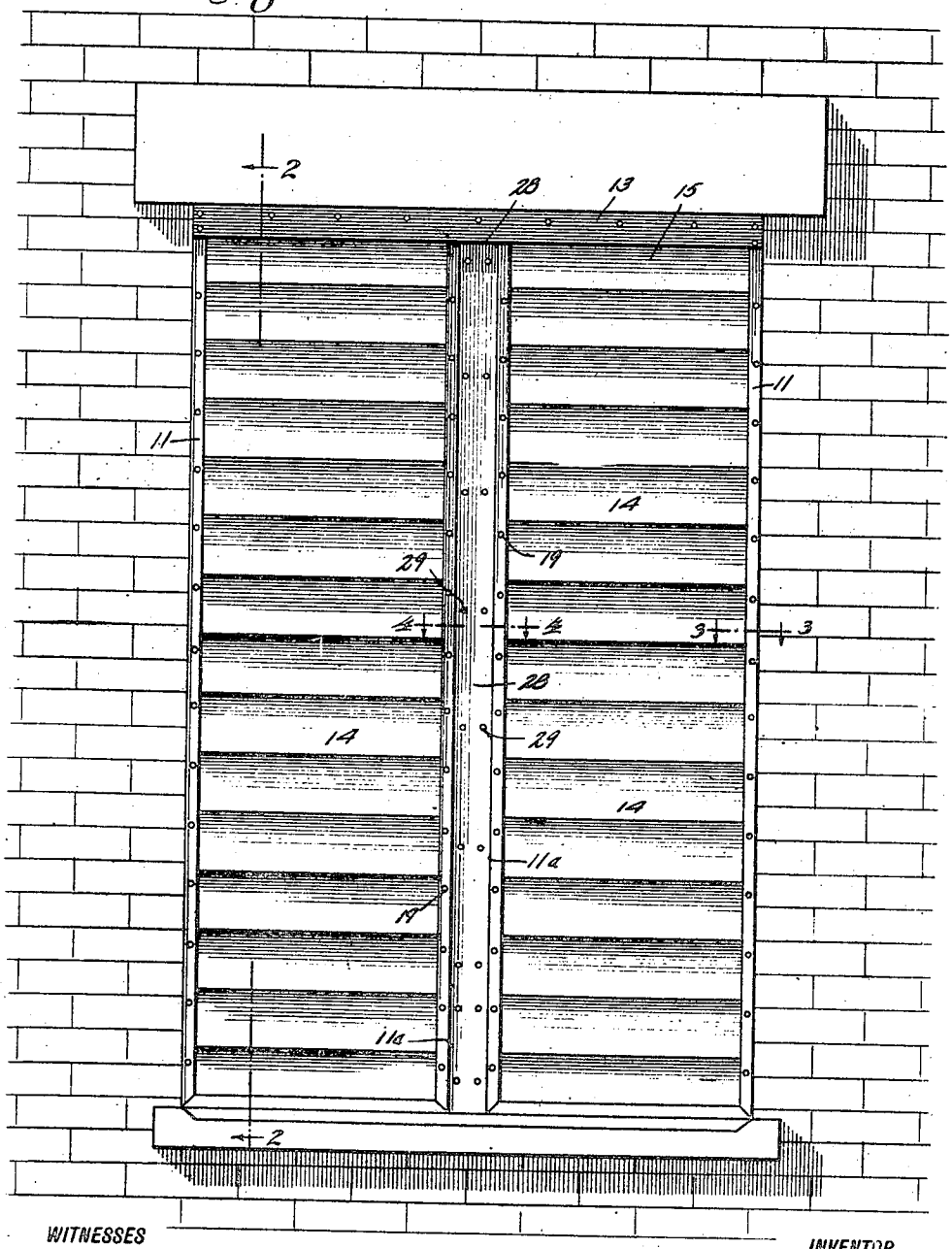
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1,380,980.

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2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2.

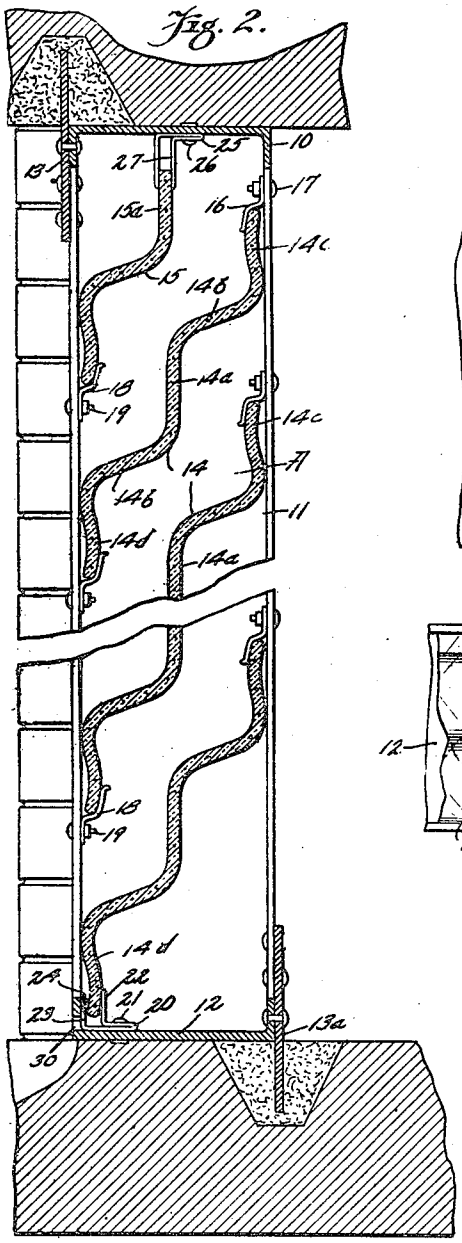


Fig. 3.

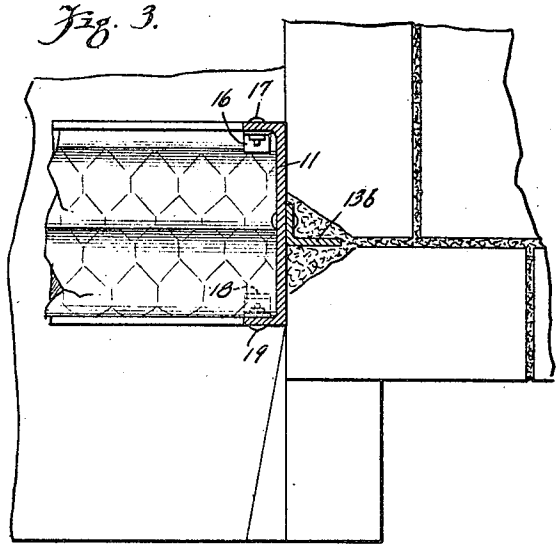


Fig. 4.

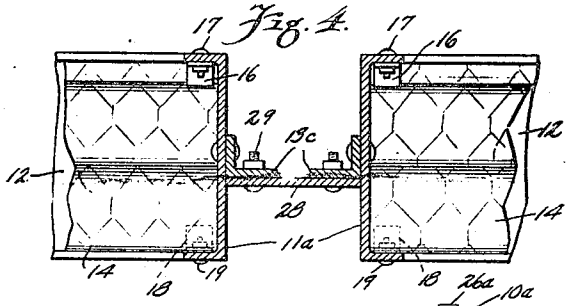
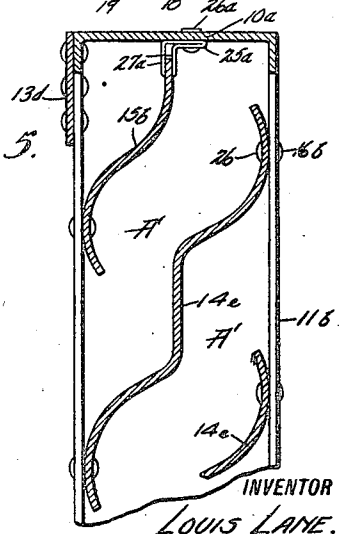


Fig. 5.



WITNESSES

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LOUIS LANE, OF HABANA, CUBA.

LOUVER OR SLAT WINDOW.

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To all whom it may concern:

Be it known that I, LOUIS LANE, a citizen of the United States, and a resident of Habana, Cuba, have invented a new and Improved Louver or Slat Window, of which the following is a description.

My invention relates to a louver or slat window and while especially adapted for embodiment in windows having fixed slats or louvers is not limited in all its phases to that type.

An object of the invention is to provide a window of the character in which adjacent louvers offer an increased obstruction to wind-blown rain or snow to prevent the same from entering the building with which the window is equipped as compared with louver windows of the usual forms; and at the same time to provide ample ventilation space between the louvers.

A further object of the invention is to provide a louver construction offering the desired obstruction to the entrance of rain or snow into the building and yet capable of embodiment in glass louvers affording ample light.

More specific objects of the invention are to provide a novel form of frame for the louvers together with novel securing means for the latter and to provide frame elements and louver-securing elements particularly adapted to my improved louvers and reflecting practical considerations with respect to simplicity of construction and durability as well as facilitating the installation and repair of the window.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a front elevation of a louver window embodying my invention;

Fig. 2 is a transverse vertical section on the line 2—2, Fig. 1;

Fig. 3 is a horizontal section through one side of the window as indicated by the line 3—3, Fig. 1;

Fig. 4 is a section through the mullion as indicated by the line 4—4, Fig. 1;

Fig. 5 is a fragmentary transverse vertical section showing the upper portion of a modified form of my improved window.

In carrying out my invention in accordance with the illustrated example, I provide a frame comprising a head 10 in the form of a broad channel bar, corresponding jambs 11, and a corresponding channel sill 12. The head is equipped with a baffle plate 13 to obstruct entrance of rain or snow at the top of the window and said plate may extend as shown in Fig. 2 above the head 10 to be embodied in the masonry of a building or secured to a steel frame of a building. A similar baffle and anchoring plate 13^a is secured to the sill 12 and extends below the same. At the outer sides the jambs 11 have for anchoring members vertical angle bars 13^b.

The louvers of my improved window present bends or sinuosities to form a sinuous vent space therebetween. Except at the top the louvers are indicated by the numerals 14, the top louver being designated 15. Said louvers present offset upper and lower edge portions lying in different planes and between said edge portions the louvers are corrugated longitudinally to produce a central approximately vertical portion 14^a in each louver and oblique portions 14^b above and below the said central portion and merging into the latter and into the upper and lower edge portions designated 14^c, 14^d. The louver as a whole is disposed obliquely and means is provided to support the louvers in overlapping oblique planes whereby to provide the sinuous passage A therebetween. The vertical central portion 14^a of one louver rises above the lower edge of the next louver above so that wind entering a vent opening or passage A will strike the central portion 14^a of that louver at the back of said passage and then will tend to strike in a large measure against the lower oblique portion 14^b of the louver directly above, and pass rearwardly toward the upper edge 14^c of the first mentioned louver and upwardly between said upper edge and the adjacent central portion 14^a of the louver above toward the uppermost oblique portion 14^b of the upper louver and into the building. The moisture however, will be deposited on the surfaces successively encountered and will thus be prevented from entering the building. The upper edge of each louver 14 is secured by clips 16 fastened by any suitable fasteners, 17, to the flanges of the channel jambs 11 and presenting depending lower ends offset laterally inward to be spaced from said flanges so that the side edges of

the louvers may be housed in the channel jambs 11 and the upper edges 14^c thereof lie between the flanges of the jambs and said clips.

The lower edge 14^d of each louver is secured by clips 18 secured by suitable fastening means 19 to the adjacent flange of the channel jambs and presenting offset upper ends, said clips being the same as the clips 16 but upturned.

The lower edge of the bottom louver is secured by a clip 20 consisting of a strip bent upon itself and secured by suitable fastening means 21 to the sill 12 adjacent to the outer flange of the latter.

Each clip 20 presents spaced terminals to engage the edge of the louver, the inner terminal 22 rising higher than the outer terminal 23. A cement or putty filler is provided above the terminal 23 between the adjacent flange of the sill 12 and the front surface of the downwardly disposed edge portion 14^d of the louver.

At the head 10, at the under side thereof, clips 25 are provided, secured by fasteners 26 and presenting downwardly disposed spaced terminals 27 to accommodate the upper edge 15^a of the top louver 15, said edge and clip being disposed approximately at the medial line of the window frame. The louver 15 corresponds approximately with the lower half of a slat 14 so that the passage formed between said upper louver and the next one below will correspond generally with the other passages A between the louvers 14 but of slightly less height.

The described features are shown as embodied in a window having two vertical series of louvers, the window having a central mullion 28 formed preferably by two spaced channel jambs 11^a disposed back to back, together with angle irons 13^c permanently fastened to the backs of said jambs and secured as by bolts 29 to a face plate 28 of a width to extend from one jamb to another.

The louvers 14, 15 are preferably formed of wired glass, the described frame and clips lending themselves to the employment of glass whereby ample illumination may be had. The described form of louvers, however, may be produced in metal as indicated in Fig. 5 in which the louvers 14^e, 15^b correspond with the louvers 14, 15 in general shape to produce sinuous air vents or passages A'. I have shown upper and lower edges of the louvers 14^e and the lower edge of the upper louver 15^b permanently secured by rivets 16^b. The frame in the form shown in Fig. 5 is of channel members a head 10^a and a jamb 11^b being partially indicated together with a baffle plate 13^d at the top of said head. Said upper and lower edges of the metal louvers are preferably curved to present concavities toward the medial plane of the window frame.

The upper edge of the upper louver 15^b is secured by a clip 25^a corresponding with the clip 25 and presenting spaced ends 27^a to accommodate the adjacent upper edge of the louver, said clip being secured by a rivet 26^a.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the mechanical details herein illustrated, since manifestly the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:—

1. In a louver window, a series of louvers disposed in overlapping oblique planes, and presenting longitudinal corrugations, the upper louver presenting an upwardly extending upper edge disposed approximately in a plane at the medial line of a window, and means securing said louvers, said means including fastening means at the medial line of the window at the top and engaging the upper edge of the uppermost louver.

2. In a louver window, longitudinal corrugated louvers presenting an intermediate approximately plane portion, portions adjacent to and above and below said intermediate portion and disposed in opposite oblique planes, and upper and lower edges adjacent to said oblique portions.

3. In a window, louvers disposed in overlapping oblique planes and presenting upper and lower edges respectively directed upwardly and downwardly, and clips engaging said upper and lower edges.

4. In a window of the class described, a series of louvers disposed in overlapping oblique planes, and presenting between adjacent louvers ventilating spaces each extending approximately vertically for part of its total length, and extending obliquely at the outer entrance end.

5. In a window of the class described, a series of louvers disposed in overlapping oblique planes presenting between adjacent louvers ventilating spaces, each extending approximately vertically for part of its total length, and extending obliquely at the inner discharge end thereof.

6. In a window of the class described, a series of louvers disposed generally in overlapping oblique planes, adjacent louvers running parallel and approximately vertically at their intermediate portions, the ends of the louvers being offset from said intermediate portion in planes approximately parallel therewith.

LOUIS LANE.