H. V. LOUGH.

SWINGING PANEL FOR DISPLAY FIXTURES.

APPLICATION FILED DEC. 15, 1916.

1,251,254.

Patented Dec. 25, 1917.

2 SHEETS—SHEET 1.

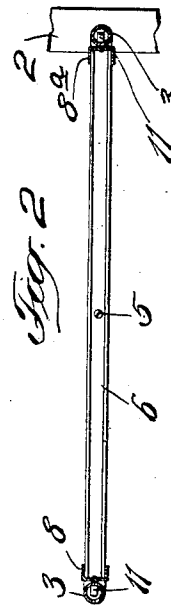

Fig. 2.

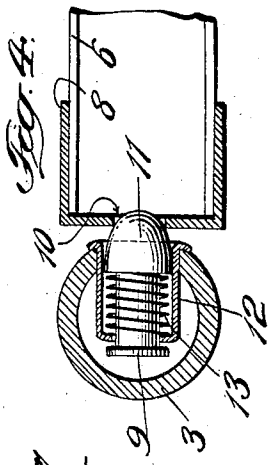

Fig. 4.

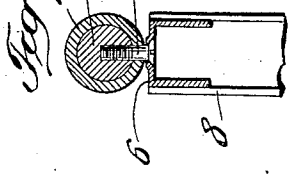

Fig. 3.

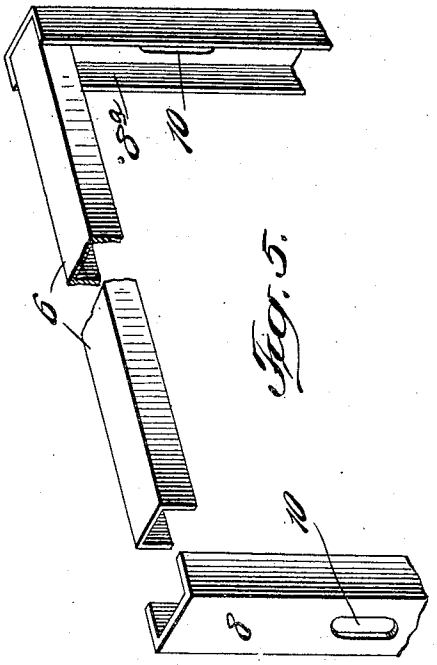

Fig. 5.

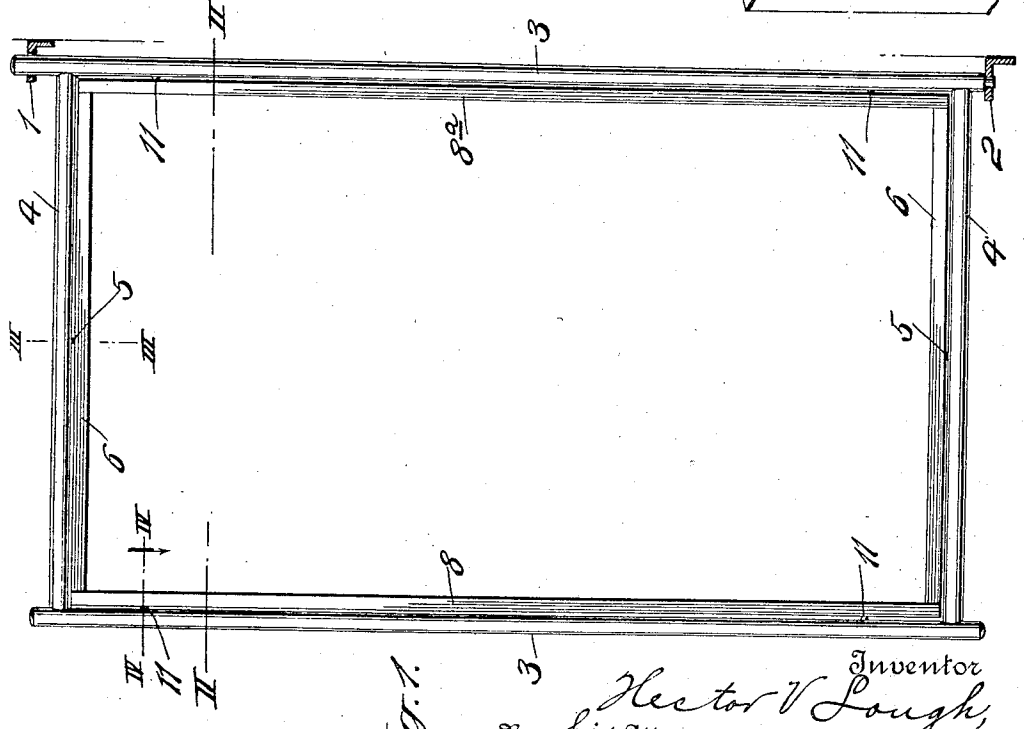

Fig. 1.

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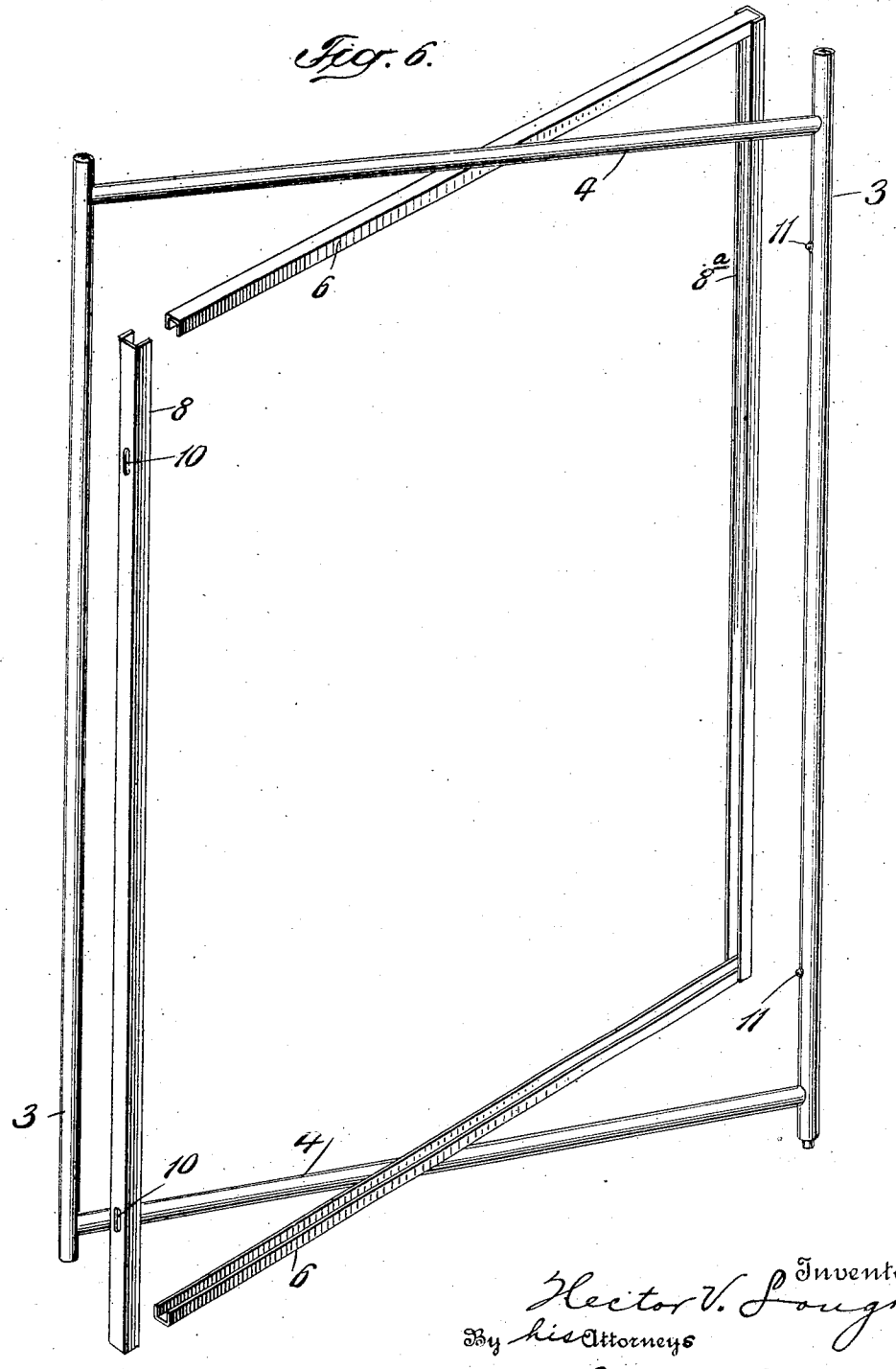
2 SHEETS—SHEET 2.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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SWINGING PANEL FOR DISPLAY-FIXTURES.

1,251,254. Specification of Letters Patent. Patented Dec. 25, 1917.

Application filed December 15, 1916. Serial No. 137,218.

To all whom it may concern:

Be it known that I, HECTOR V. LOUGH, a subject of the King of Great Britain, and resident of North Plainfield, county of Somerset, and State of New Jersey, have invented certain new and useful Improvements in Swinging Panels for Display-Fixtures, of which the following is a specification.

This invention relates to improvements in swinging panels for display fixtures.

One of the principal objects of the invention is the provision of a swinging panel for display racks in which maps, pictures, display cards, sample sheets of fabrics, and the like, may be readily inserted and removed, and will be protected from injury while on display.

A further important object of the invention is the provision of a panel of the character described having a simple and readily assembled display-holding frame mounted therein and so constructed and arranged that the picture, sheet of fabric, or other article to be displayed is rigidly supported within the main frame of the panel.

Another object of the invention is the provision of a display panel having display holding means so constructed and arranged that the card or other article to be displayed may be inserted and removed from one side of the frame without removing the swinging panel from the fixture support.

Another important feature of the invention is the provision of a light and inexpensively constructed display-holding frame adapted to be shifted out of the plane of the main frame of the panel to permit the insertion, from a point at one side of the holding frame, of the sheet or sheets to be framed.

A further object is the provision of means for locking the holding frame within the plane of the main frame of the panel to form a rigid support for the light holding frame and to maintain the display in proper position in the fixture.

In the drawings, Figure 1 is a side elevation of the swinging panel;

Fig. 2 a horizontal sectional view on the line II—II of Fig. 1;

Fig. 3 a vertical sectional view on the line III—III of Fig. 1;

Fig. 4 a detail horizontal section on the line IV—IV of Fig. 1;

Fig. 5 a detail view showing the construction and manner of assembling the inner holding frame; and

Fig. 6 a perspective view showing the manner of inserting and removing the displays.

Referring to the various parts by numerals, 1 and 2 designate the usual upper and lower angle iron supports in which the swinging panels are pivoted, these angle irons being attached to a wall or stand. The outer frame of the panel is formed of vertical rods 3 and horizontal rods 4 connecting the rods 3 at points adjacent their upper and lower ends. These rods are preferably tubes, the ends of the vertical rods 3 being preferably closed by caps welded thereon to present a more finished appearance. The ends of the cross bars 4 are welded to the vertical rods 3, and the ends of one of the vertical rods are journaled in apertures in the angle iron supports 1 and 2 as shown in Fig. 1. A light and strong outer frame or swinging panel is thus formed.

Mounted within the outer panel is a very light channel iron display-holding frame. This frame is preferably pivotally supported in the outer panel by means of vertical pivot pins 5 connecting the cross bars of the frame with the cross bars of the outer panel at points intermediate their ends, preferably about midway the length of the cross bars. Obviously, however, the frame might be mounted on horizontal pivot pins connecting the sides of the holding frame with the vertical rods 3, or the frame might be supported in the outer panel in any other suitable manner, it being essential only that the holding frame be normally supported within the plane of the outer panel and adapted to be shifted or swung out of the plane of said panel.

I prefer to form the pivots as shown in Fig. 3 of the drawings, the pivot pin being in the form of a screw 5 passed through apertures in the cross bar of the frame and

the cross bar 4 of the outer panel, and screwed into a filling piece 7 in the cross bar 4.

The holding frame is constructed of upper and lower channel iron cross bars 6 and vertical channel iron side bars 8 and 8ª. The side member 8 frictionally engages the ends of the bars 6, and the side member 8ª is permanently connected to the opposite ends of the bars 6, preferably by welding. This inner holding frame is constructed of very light metal, and preferably is made so light as not to be rigid enough to prevent distortion or flexing thereof when unsupported. No other means is employed for holding the meeting ends of the channel iron side member 8 and cross bars 6 together, than the frictional engagement of the side walls of the channel irons, the walls of these irons preferably being made light enough to be slightly resilient.

The side members of the inner frame are provided with a series of elongated apertures 10 into which the rounded outer heads of spring-pressed latch plugs 11 are adapted to enter to lock the inner frame in the outer rigid swinging panel when the inner frame is swung into the plane of the outer panel. The plugs 11 are slidably mounted in sockets or cups 12 secured in the side members 3 of the outer panel. The plugs have reduced stems which pass through the bottoms of the socket cups 12, and are provided with heads 9 to limit the outward movement of the plugs. Coil springs 13 surround the reduced portions of the plugs and are interposed between the bottoms of the sockets and the heads 9 of the plugs, so as to yieldingly hold the plugs in projected position. The apertures 10 are preferably elongated to insure the engagement of the plugs 11 therewith, notwithstanding slight inaccuracies in manufacture or slight relative displacement due to distortion of the inner frame. The latch plugs 11 may, if desired, be mounted in the cross-bars 4 of the outer panel, and any other suitable means may be employed to hold the two frames in the same plane.

To mount a sheet or sheets to be displayed in the panel, it is simply necessary to swing the inner holding frame out of the plane of the outer panel by pressing on one side thereof, and then to remove the frictionally held side member 8, whereupon the sheet or sheets to be exhibited may be slid into the holding frame, the member 8 replaced and the inner frame swung back into the plane of the outer panel and automatically locked therein by the plugs 11. The exhibit is preferably placed between glass protecting sheets before being placed in the frame. The flanges of the channel iron inner frame hold the exhibit and glass protecting sheets in place.

It will be observed that when the holding frame, with the exhibit, is swung into the plane of the rigid outer panel said panel supports the inner frame and prevents distortion thereof and accidental separation of the frictionally held member 8 from the holding frame.

By the arrangement shown and described it will be seen that a simple exhibit-framing means has been provided, which does not materially increase the weight of the swinging panel.

It will also be observed that the arrangement is such that the exhibit may be inserted and removed from the panel at an easily accessible point, without removing the swinging panel from the fixture.

What I claim is:

1. A display fixture comprising a rectangular outer frame, and a rectangular inner exhibit-holding frame pivotally held to the outer frame and shiftable into and out of the plane thereof, one member of the inner frame being movable relatively to the remaining members thereof to permit the insertion of an exhibit in said frame from one edge thereof when the inner frame is shifted out of the plane of the outer frame.

2. A display fixture, comprising a rectangular outer frame, a rectangular inner exhibit-holding frame pivotally held to the outer frame and shiftable into and out of the plane thereof, one member of the inner frame being movable relatively to the remaining members thereof to permit the insertion of an exhibit in said frame from one edge thereof when the inner frame is shifted out of the plane of the outer frame, and means for automatically locking the inner and outer frames against relative movement when the inner frame is shifted within the plane of the outer frame.

3. A panel for display racks comprising an outer frame, an inner exhibit-holding frame mounted therein and shiftable out of the plane thereof to permit the insertion of an exhibit in said holding frame from one edge thereof, and means for automatically locking the inner frame within the outer frame when the inner frame is shifted within the plane of the outer frame.

4. A display fixture panel comprising an outer frame, an inner exhibit-holding frame pivotally held to the outer frame and shiftable into and out of the plane thereof, a part of the inner frame being movable when said frame is shifted out of the plane of the outer frame to permit the insertion of an exhibit in the inner frame from the edge thereof, said movable inner frame part being held in place by said outer frame when the inner frame is within the outer frame, and means for normally holding the inner frame within the plane of the outer frame.

5. A display fixture panel comprising an

outer frame, and an inner exhibit-holding frame mounted therein and shiftable out of the plane thereof, a part of said inner frame being detachable to permit the insertion of an exhibit in said frame from the edge thereof, said detachable frame part being removable when the inner frame is shifted out of the plane of the outer frame and being held in place by said outer frame when the frames are in the same plane.

6. A display fixture panel comprising an outer frame, an inner exhibit-holding frame pivotally supported in said outer frame and shiftable into and out of the plane thereof, and yieldable means for automatically locking the frames against relative movement when the inner frame is shifted into the plane of the outer frame.

7. A display fixture panel comprising an outer frame, an inner exhibit-holding frame mounted therein and formed of channel members, said inner frame being movable out of the plane of the outer frame, one of said channel members being movable to permit the insertion of an exhibit in the inner frame from one edge thereof when the inner frame is shifted out of the plane of the outer frame, and means for locking the two frames in the same plane.

8. A display fixture panel comprising an outer frame, an inner exhibit-holding frame mounted therein and formed of channel members, said inner frame being shiftable out of the plane of the outer frame and one of its channel members being detachable when the inner frame is shifted out of the plane of the outer frame, and means for locking the inner frame within the plane of the outer frame, said detachable inner frame member being held against displacement by the outer frame when the two frames are in the same plane.

9. A panel for display racks comprising an outer frame and an inner exhibit-holding frame mounted therein and comprising channel iron cross bars pivotally connected with said outer frame, a channel iron side member rigidly connected with the abutting ends of said cross bars, and a channel iron side member frictionally connected with the opposite ends of said cross bars.

10. A panel for display racks comprising an outer frame and an inner exhibit-holding frame mounted therein and comprising channel iron cross bars pivotally connected with said outer frame, a channel iron side member rigidly connected with the abutting ends of said cross bars, a channel iron side member frictionally connected with the opposite ends of said cross bars, and means for locking the two frames in the same plane.

11. A panel for display racks comprising an outer frame, an inner exhibit-holding frame mounted therein and comprising channel iron cross bars pivotally connected with said outer frame, a channel iron side member rigidly connected with the abutting ends of said cross bars, and a channel iron side member frictionally connected with the opposite ends of said cross bars, and spring-pressed latch bolts carried by said outer frame and adapted to engage in sockets in the inner frame to hold the frames in the same plane.

12. A display fixture panel comprising a rectangular outer frame, a rectangular inner exhibit-holding frame fitting closely within said outer frame and formed of a pair of parallel channel members pivotally held to the outer frame and a pair of channel members connecting the opposite ends of said pivoted members, one of said connecting channel members being frictionally held to said pivoted members, and means for locking the inner frame within the outer frame, said frictionally held channel member being removable when the inner frame is shifted out of the outer frame and being held against displacement by the outer frame when the inner frame is fitted within the outer frame.

13. A display fixture comprising an outer rectangular frame, an inner exhibit-holding frame fitting closely within the outer frame and shiftable out of said frame, and means for locking the inner frame within the outer frame, said inner frame being formed of channel members one of which is frictionally connected at its ends to the ends of the adjacent channel members, said frictionally held member being removable when the inner frame is shifted out of the outer frame.

In testimony whereof I hereunto affix my signature.

HECTOR V. LOUGH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."