A. C. Palmer,

Lock Hinge.

No. 2,936. Patented Jan. 27, 1843.

Fig. 1.

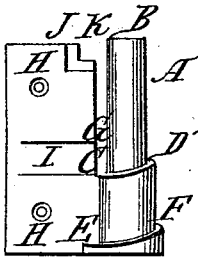


Fig. 2.

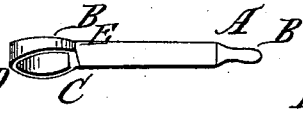


Fig. 3.

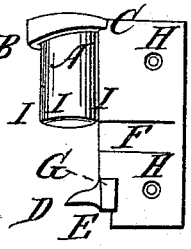
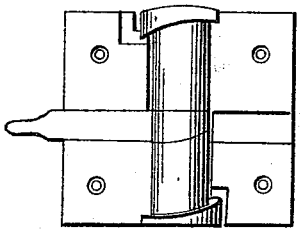


Fig. 4.



UNITED STATES PATENT OFFICE.

AUGUSTUS C. PALMER, OF UTICA, NEW YORK.

METHOD OF CONSTRUCTING BUTTS OR HINGES FOR HANGING AND FASTENING WINDOW BLINDS AND SHUTTERS.

Specification of Letters Patent No. 2,936, dated January 27, 1843.

To all whom it may concern:

Be it known that I, AUGUSTUS C. PALMER, of the city of Utica, in the county of Oneida and State of New York, have invented a new and useful Improvement in the Form of Making Butts or Hinges for Window Blinds or Shutters; and I do declare that the following is a full and exact description.

The lower butt or hinge consists of three pieces, viz: Figures 1, 2, and 3. Fig. 1 is the part which is attached to the window frame. The pivot A, upon which the lever (Fig. 2) and the part attached to the window blind (Fig. 3) revolves, is made perfectly round and of the same diameter from the top B, to the letters C, D, G, where it is enlarged and continues enlarged from the letters C, D, G, to the letters E, F, where it is further enlarged by a projection which extends around the pivot, and is the lower part of the hinge. The top of the enlargement C, D, G, is an inclined plane which gradually rises from the point C, and reaches entirely around the pivot terminating at the point G. The top of the enlargement E, F, is likewise an inclined plane, rising parallel from the point E, with the inclined plane C, D, G. The plane on the top of the enlargement E, F, reaches a little more than half way around the pivot from the point E, when it falls perpendicularly to a level with the point E, and commences gradually rising again until it stops at the back of the flat part of the hinge, which contains the screw holes and back of and above the point E, and on a horizontal line with the highest part of the inclined plane on the projection E, F. H, H, are screw holes by which the part is attached to the window frame. I, is a place grooved in the butt to admit the flat part of the lever (Fig. 2) and is about one half the depth of the thickness of the lever. J, is a slight projection from the flat part of the butt which may be omitted if desired by shortening the inclined plane at the top of Fig. 3.

Fig. 2, is the lever which slips on to the pivot A, in Fig. 1. It is straight and about one eighth of an inch in thickness, and about half an inch in width from the point A, to the point B, where it is enlarged in thickness to the diameter of the part of Fig. 1, from C, D, G, to E, F. Through this part is a hole large enough to allow it to slip on to and turn on the pivot A, in Fig. 1. The rim or part between the hole and outer edge being just the thickness of the projection from the bottom of the pivot A at the points C, D, G, to the outer edge of the enlargement. The lever at the point C, is about half an inch in width, from which point the rim which encircles the pivot gradually grows narrower to the points D, E, forming a rising inclined plane on the under side of the rim to the point E, where it is about one third of the width of the flat part of the lever at the point C. When the lever is slipped on to the pivot and turned round into the groove I, in Fig. 1, the lower part of the rim or enlarged part of the lever fits the inclined plane at the bottom of the pivot A, in Fig. 1, indicated by the letters C, D, G. The lever is in this position (shown in Fig. 4) when the blind is closed or opened and fastened and remains in this position until the blind is required to be closed. The end at A can be made square or with a handle, or it may turn at right angles with the part B, A, and then have a handle or in any other form which the maker may choose.

Fig. 3 is the half which is attached to the blind or shutter. The cylinder A, is hollow and slips on to the pivot in Fig. 1, and is just the diameter of the enlarged part of Fig. 1, from C, D, G, to E. F. The part from B, to C, is enlarged to the diameter of Fig. 1, from E, to F. On the under side of this enlargement projecting over the lower part of the cylinder is an inclined plane which gradually falls as it proceeds from C, to B, and extends a little more than half way around the cylinder when it rises perpendicularly to a horizontal line with the point C, when it gradually falls again until it reaches the back of the flat part containing the screw holes and back of and below the point C, where it is on a line with the lowest part of the projection, or, on a level with the point where the first inclined plane rises to a level with the point C. The projection D, E, when put together fits around the part of Fig. 1 from C, D, G, to E, F, the lower part from E, to D, being in the form of an inclined plane rising gradually from E, to D, and fits when slipped on to Fig. 1 the inclined plane from E, to F. F, is a groove similar to the one in Fig. 1 and is for the same purpose, viz: to make room for the lever when the blind is shut. G, is a slight projection similar to the one in Fig.

1 (J,) and may be dispensed with by shortening the first inclined plane E, F, at the bottom of Fig. 1. H, H, are screw holes to attach the piece to the blind.

Fig. 4, is the appearance of the hinge put together when the blind is opened and fastened. When the blind is shut the projection D, E, in Fig. 3, rests on the inclined plane E, F, in Fig. 1. The inclined plane in Fig. 3, at the point C, rests on the top of the part of Fig. 1 indicated by the letter K, and the lower part of the cylinder I, I, I, in Fig. 3, rests on the top of the lever, Fig. 2. The lever when the blind is shut or opened and fastened resting on and fitting the inclined plane C, D, G, in Fig. 1, and fitting the groove I, in Fig. 1. When the blind is opened it gradully rises on the inclined planes E, F, in Fig. 1, and B, C, in Fig. 3, as it opens until the projection G, in Fig. 3, gets to the end of the first inclined plane E, F, at the bottom of Fig. 1, and the end of the first inclined plane C, B, in Fig. 3, reaches the inside of the projection J, in Fig. 1, when it drops to a level with the place from which it started, where the first inclined planes E, F, in Fig. 1, and B, C, in Fig. 3, end. It then rests as is seen in Fig. 4, that is, on the commencement of the second inclined planes in Fig. 1 and Fig. 3, and the lower end of the cylinder I, I, I, in Fig. 3, on the top of the lever Fig. 2, and is firmly fastened in this position by the slight projection G, in Fig. 3, pressing against the end of the inclined plane E, F, in Fig. 1, where it falls to a level with the point E, in Fig. 1. The end of the inclined plane C, B, in Fig. 3, likewise pressing against the projection J, in Fig. 1. When the blind is required to be closed the lever Fig. 2 is turned round into the groove F in Fig. 3, which gradually raises the blind as it turns upon the inclined plane C, D, G, at the foot of the pivot A, in Fig. 1. When the lever is turned into the groove F, in Fig. 3, the lower part of the projection G, in Fig. 3, is raised a little above the highest point of the inclined plane E, F, in Fig. 1, and the lowest part of the inclined plane B, C, at the top of Fig. 3, is also raised a little above the top of the projection at the letter K, in Fig. 1, so that the blind can be closed with perfect ease, the lever closing at the same time and the blind falling on the inclined planes E, F, in Fig. 1, and B, C, in Fig. 3, as it closes, and the lever falling on the inclined plane at the foot of the pivot A, in Fig. 1, as it shuts into the groove I, in Fig. 1, when the blind is closed.

The upper butt or hinge is made in the same manner as the lower one with the exception of the lever which is omitted, and likewise omitting the inclined plane at the bottom of the pivot A, in Fig. 1, the projection C, D, G, being made all the way around as high as the point G, that is square all the way around instead of being an inclined plane.

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

1. The method of fastening by having a notch at the end of the inclined planes on one half of the hinge into which the other half falls, in manner substantially as herein described.

2. I also claim the method of lifting out the dropping half by means of the screw lever, in manner substantially as herein described.

AUGUSTUS C. PALMER.

Witnesses:
JAMES P. KEELER,
STAFFORD PALMER.