# W. Baker,

## Lock Hinge.

No. 2,776. Patented Sep. 17, 1842.

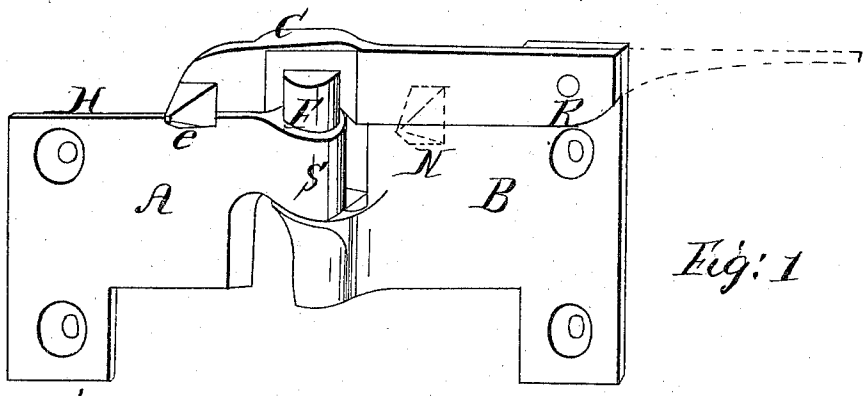



Fig: 1

Fig: 2.

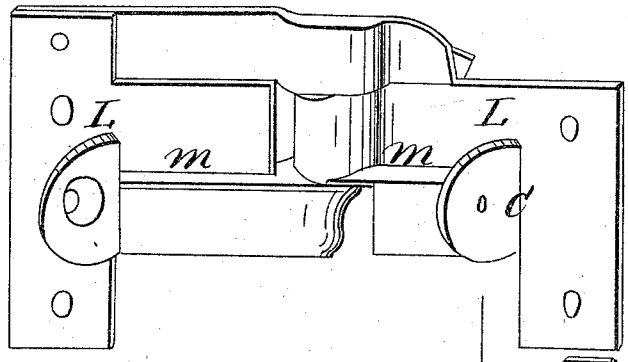



Fig: 6.

Fig: 3.

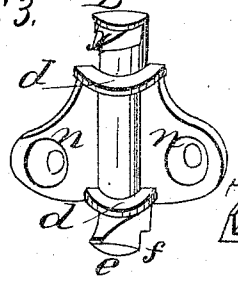



Fig: 5.

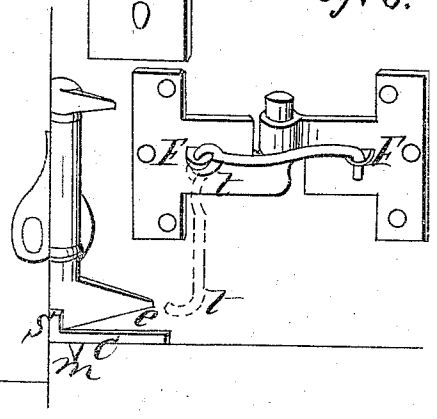
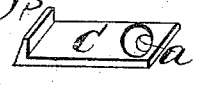



Fig: 4



# UNITED STATES PATENT OFFICE.

WM. BAKER, OF UTICA, NEW YORK.

## WINDOW-BLIND HINGE AND FASTENING.

Specification of Letters Patent No. 2,776, dated September 17, 1842.

*To all whom it may concern:*

Be it known that I, WILLIAM BAKER, of the city of Utica, in the county of Oneida and State of New York, have invented a new and useful Improvement in Window-Blind Hinges and Fastenings; and I do hereby declare that the following is an exact description.

The nature of my invention consists in connecting the window-blind fastening with the lower blind hinge, by adding to the hinge a latch, or hook by which the blind is fastened and held, without any fastening on the back side of the blind, or on the wall of the house. And in adding certain other improvements, by which the hinge is strengthened, and improved.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The hinge as in other cases, is made of different sizes, and lengths, to suit the projection of the wall beyond the window casing, and those for wooden houses are made, as usual, very short. They are also made rights and lefts to suit the two sides of the windows, as hinges for blinds are usually made.

A B Fig. 1 of the annexed drawings, represents the hinge of the usual size for a brick house, where the wall projects three inches beyond the window casing. Its general form is the same as that of the ordinary extension hinge, which is composed of a single hook and eye, and which allows the blinds to be removed at pleasure, by simply lifting the eyes, (they being always attached to the blind) from the hooks, the latter being always attached to the window casing. This form is varied only, so far as is necessary for the reception and use of the latch C, and the addition of the back brace on each of the parts A and B of the hinge, for the insertion of a transverse screw. These are seen at L L Fig. 2, and are particularly described hereafter.

*m m* Fig. 2 are ridges cast on the back side of each part of the hinge merely to strengthen it.

The latch C Fig. 1 is the agent by which the window blind is fastened open, and is a substitute for the outside fastenings ordinarily used, and which are usually fixed to the outside of the blind, and to the wall of the house, rendering these unnecessary, and bringing the blind fastenings within reach of the hand, and in plain view, without putting the head out at the window. The form of the latch is seen with figure where it is shown of the full size, adapted to the hinge there represented. It is made of cast iron, or any other metal suitable for the hinge. It is attached to the part B of the hinge, by the rivet R, on which it is allowed to work easily, like an ordinary door latch; the end on which the catch *e* is situated, being capable of being lifted at pleasure, and readily falling to its place by its own gravity. The catch *e* is attached to the side of the latch, and close to the end of it, and is cast on it. It extends below the lower edge of the latch about one fourth of an inch, to form the bite, or hold of the latch. The hook or pin F, which also belongs to the portion B of the hinge, has an extra length and passing through the eye S, extends about three eigths of an inch above it, as seen at F; and that portion of it above the eye S, is a little flattened on the side next to the latch. A recess is sunk in the side of the latch, lying against the pin, so that when the latch is down, the back of this recess, resting against the pin, and the hinge extended, as seen in the figure, the lower edge of that portion of the latch extending beyond the pin, rests on the upper edge of the part A of the hinge; the catch *e* shutting over the plate of the hinge as seen in the figure.

There is a bend in the latch, as seen at C, so that although the portion of it extending beyond the pin F rests on the edge of the part A of the hinge, yet the portion on the other side of the pin, does not lie directly over the edge of the hinge but precisely its thickness in front of it; so that it is straight from the rivet R to the bend at C, where it falls back a distance equal to its thickness, bringing that portion of it beyond the pin F, directly over the edge of the hinge as before described.

For the purpose of shortening the latch, and particularly for wooden buildings, it may be made with a ring at the outer end, to close over the end of the pin; and in that case the catch may be located in the under edge of the ring, and the eye of the hinge notched, or otherwise conformed to the arrangement of the catch, so as to hold the blind back. Or the catch may be placed on the latch, on the other, or nearer side of the pin, and a projection cast on the eye of the hinge to which the catch fastens when the

blind is thrown back; and in this case the latch bears against the front, instead of the rear side of the pin, and the opposite side may be open, as the front now is in the figure; or any other modification or arrangement of the catch or manner of seizing the movable part of the hinge by the latch, and thus holding the blind open, may be adopted.

The left wing G H, is shortened, as at H, so that when the hinge is closed by closing the blind, or otherwise bringing the two surfaces A and B together, the wing H closes under the end of the latch at R without interfering with it.

Fig. 2 exhibits the back side of the hinge, when extended as before considered, and shows the back braces L and L cast on the back side of each half of the hinge with a screw hole in each. They are about seven eighths of an inch in length, the same in width at the base and rounded off at the outer end. They stand at eight angles to the plane of the hinge, which is to be screwed to the window blind and casing; so that the angle, as at C Fig. 2, formed by the plane of the hinge, and the projecting brace, meeting the square corner of the blind, or casing when put on, the hinge is made to embrace, two sides of the said square. Two screws are then inserted through the screw holes seen in the wings of the hinge in the usual manner, and a third in each side through the holes seen in the back braces L L Fig. 2. These passing in a transverse direction between those first mentioned. These back braces, serve to support the hinge, and render it more firm, while the screws driven through them, not only render that support more firm, and secure, but hold together, and support the timber through which the other screws pass.

The hinges having been put on the window blind and casing, in the usual manner of putting on the common extension hinge; the operation, and use of the hinges is not changed by the addition of the latch; but the latter is operated upon, and performs its office of fastening the blind by the ordinary action of the hinge. The blind being closed, it is opened and fastened back, by raising the window, and loosening the inside fastening, which is hereafter described. The blind is then thrown back in the ordinary way, the portion A Fig. 1 of the hinge being carried out by the movement of the blind, its upper edge meeting the inclined plane *e* of the ketch, throws up the latch, and passes under it, when the latch again falls to its place; the ketch *e* shutting over the plate of the hinge as before described. This takes place at the juncture when the hinge gains its utmost extension, as seen in the figure, and at the same time that the blind reaches the wall of the house. To close the blind, the window is again raised, and the latch disengaged with the hand. The blind is then brought around to its place and closed.

This latch may be so constructed as to fasten the window blind when closed also, by an additional catch being cast upon it, as indicated by the dotted figure N. This is precisely like the catch *e*, and the plate of the hinge strikes the inclined plane on its under side in closing the blind and raises the latch, and the hinge plate having passed under it, the latch again falls to its place, the catch N shutting over the plate in a similar manner to that described in the case of the catch *e* when the blind is opened, and thus the two faces A and B which are brought together when the blind is closed are held so by the catch N until the latch is again raised.

When the latch is to be used as a double fastening, that is, to fasten the blind when closed, as well as when open as just described in order that the latch may be reached from within to raise the same, it is lengthened at the inner end, as indicated by the dotted lines at T, bringing the same within reach of the hand when the blind is closed. Then, in order to open the blind, the fastening by the catch N is loosened, by the pressure of the thumb on the nearest end of the latch as at T, by which means the latch C is raised and the catch N disengaged. The blind is then thrown back and fastened by the catch *e* as before described. This extension of the latch at T, in putting on the hinge, is let through the sash bead, which is usually situated immediately adjoining the heel of the blind when closed by a small mortise through the same of sufficient vertical length to allow the latch room to move up and down freely. Or that end of the latch may be cast in a bent form so as to pass the sash bead, without going through it. In either case the end to be reached by the thumb is flattened suitably to receive the pressure of the thumb. The latch is however more convenient in use, and makes a more perfect fastening, when made in the single form as first described, and used to fasten the blind open only, and in connection with some simple fastening inside to hold the blind when closed.

Another form for uniting the blind fastening with the hinge is shown in Fig. 6 where a simple wire hook H suspended to an ear E with a hole through it, cast on the back side of the stationary part of the hinge, is made to hold open the blind when thrown back, by being raised with the hand, and hooked into a similar ear F on the back of the other part of the hinge. The hinge in this case is in all respects like the ordinary extension hinge, except the addition of the two ears cast on the back side, and the wire hook suspended to the one, of the proper length to reach and hook into the other.

The hinge here is extended as when the blind is thrown open and fastened back by the hook. From this position it is evident it cannot move, and the blind, therefore cannot be closed till the hook is disengaged. This is easily done by the hand, the window being first raised. The hook is on the back side of the hinge, but is easily accessible, in the case of, brick or stone building, where the projection of the wall at the side of the casing, leaves a recess, or vacancy, back of the hinge, sufficient for the hand to reach the hook. This form of fastening is not convenient in the case of wooden buildings; where for the want of a sufficient projection of the wall beyond the window casing, there is not room to reach the hook on the back of the hinge.

The dotted lines *t t* show the hook as it hangs suspended when the blind is not fastened by it, and from which position it is taken when raised to fasten back the blind as before described. The hook, like the single latch before described, fastens the blind open only, and is to be used in connection with the inside fastening hereafter described, or any other inside fastening, to secure the blind when closed. The latch in ordinary cases is preferable to the hook and especially in the case of wooden buildngs, where the latter cannot be conveniently used. But on brick and stone buildings, where the hinge to be used is long, the hook will be found very convenient, and an excellent fastening.

A simple and convenient form for an inside fastening, to be used in connection with the latch in its single form, or the hook as just described, is shown in Figs. 3 and 4, a side view of which is also exhibited in Fig. 5. Figs. 3 and 4 exhibit the whole of the fastening except the screws by which it is put on. It consists of three pieces the bolt *e* B and the plate *n* Fig. 3, and the step *c* Fig. 4. The main body of the bolt *e* B, Fig. 3 is flat on the back side, and oval in in front, fitted to the arched concaves of the straps *d* and *d* on the plate *n*, and is cast so as to lie loosely in these concaves when the plate *n* is screwed up against the wide slat at the bottom of the window blind. The projection *x* Fig. 3, is cast on the upper end of the bolt, to serve the double purpose of lifting the bolt by it, and to prevent its falling too low. The lower end of the bolt is fitted, by a recess cast in the rear, as seen at *f*, to fasten to the catch *s* on the step *c* Fig. 4, the latter being screwed down, on the upper side, and close to the edge of the window stool.

The lower end of the bolt *e* B Fig. 3, projects forward, and rises at the point in front, forming an inclined plane on the under side, seen best at *e* Fig. 5. This latter figure presents the fastening as put on for use, and as locked together and fastened when the blind is closed. The operation in closing the blind is thus: The blind being brought to, by the hand, the inclined plane *e* Fig. 5 strikes the top of the catch *s* on the immovable step *c*, and rising slides over it, and again falls to the position occupied by it in the figure, thus fastening the blind, and holding it, until the bolt is again raised. The plate *n n* Fig. 3 is fastened to the face of the blind frame near the bottom by two screws through the screw holes seen at *n n*. The bolt *e* B being so small as not to be pressed by the plate is suffered to move up and down freely. The screws are placed near the lower extremity, to be as nearly opposite the lower arched strap *d* as may be where the principal strain is applied by the pull upon the lower end of the slide bolt, when the blind is held to, and fastened (as seen at *s* Fig. 5) and two screws thus placed are sufficient. The arched straps *d d* Fig. 3 project forward at the apex, so as to leave an interior cavity of about one fourth of an inch, and the thickness of the slide bolt is a little less than to fill this cavity. A small nail, seen at *m* Fig. 5 is cast on the back of the step which in putting it on the window stool, is sunk into the wood; and this with one screw at *a* Fig. 4, is sufficient to hold it. This inside fastening is entirely of cast iron. It is simple, cheap and convenient, and easily put on. It is adapted to be used in connection with the latch when made of the single form above described, or with the hook, being wholly within the blind when closed, is secure from reach from without. Any other inside fastening however may be used instead of this. Anything which will hold the blind when closed may be adopted. All fixtures however on the outside of the blind, and on the wall of the house are rendered unnecessary by the use of the latch or hook connected with the hinge as above described.

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

The connecting the window blind fastening with the hinge, either by the use of the latch, made as a double fastening, that is, to fasten the blind both when closed, and when open or when made to fasten the blind when open only, or by the use of the hook on the back of the hinge, for fastening the blind open, as the same are above set forth and described.

WILLIAM BAKER..

Witnesses:

EDWARD EAMES,

BENJN. F. BROOKS.