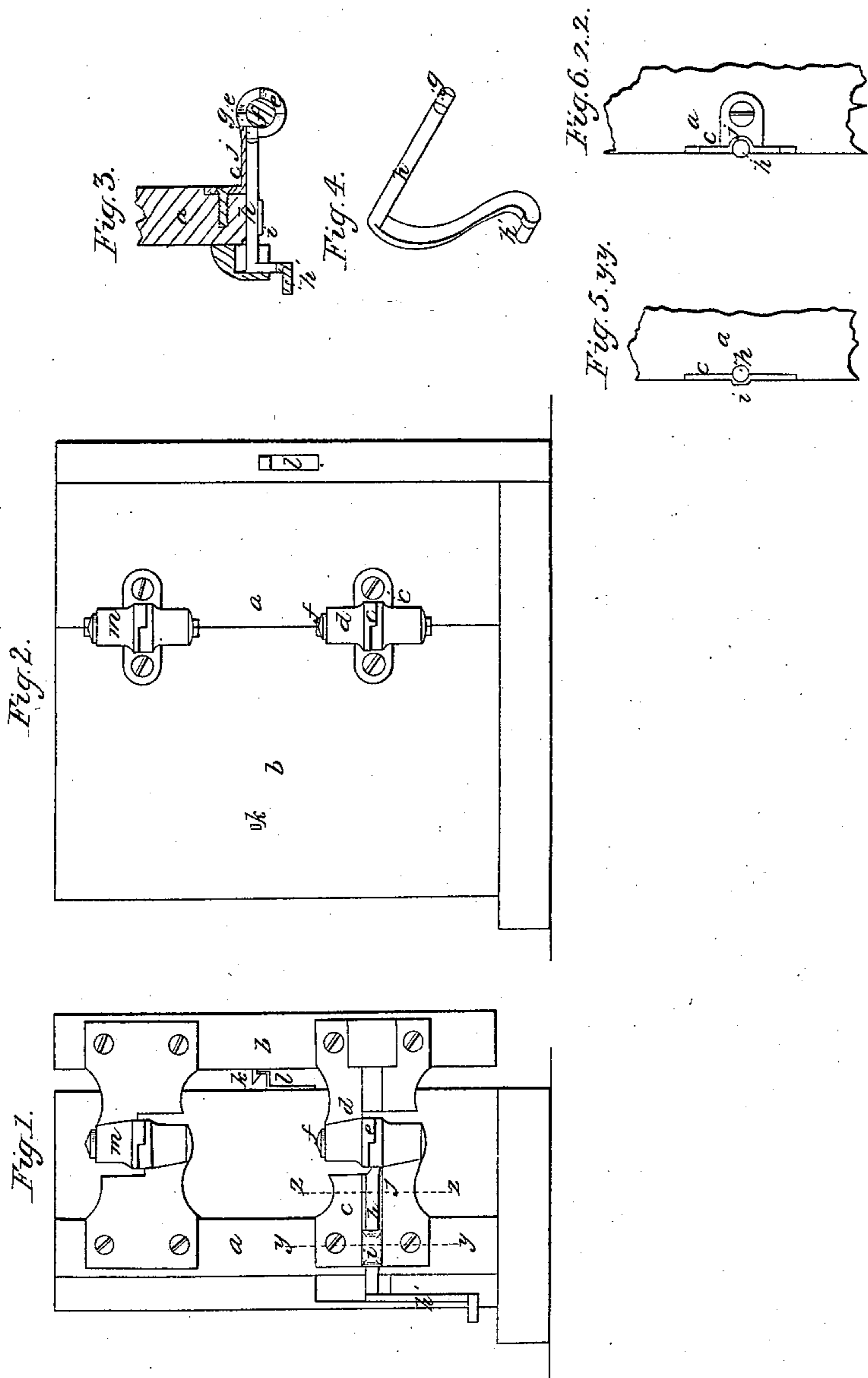


*J. Stewart,
Lock Hinge.*

N^o 5,078.

Patented Apr. 24, 1847.



UNITED STATES PATENT OFFICE.

JAMES STEWART, OF UTICA, NEW YORK.

FASTENING WINDOW-BLINDS.

Specification of Letters Patent No. 5,078, dated April 24, 1847.

To all whom it may concern:

Be it known that I, JAMES STEWART, upholsterer, of Utica, in the county of Oneida and State of New York, have invented a new and useful Improvement in Hinges and in the Mode of Fastening Window Blinds, Shutters, &c., and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of one side of a window frame with the shutter opened; Fig. 2, an elevation of one half of the outside of the window with the shutter closed; Fig. 3, a plan of that part of the lower hinge which is attached to the window frame; Fig. 4, a separate view of the cam and spindle for raising the shutter; and Figs. 5 and 6 are vertical cross sections of the stationary hinge plate taken at the lines (Y, Y) and (Z, Z) of Fig. 1.

The same letters indicate like parts in all the figures.

The object of my invention is to fasten window shutters and blinds when open or closed, without the necessity of opening the window, and to fasten and hold the shutter or blind when thrown open near the outer edge thereof as well as at the hinges to prevent the fastening from being broken by the wind aided by the leverage of the shutter or blind as is the case when the fastening is at the hinge alone. And the nature of my invention consists in making the faces of the knuckles of the hinges where the two halves come together with recesses and projections so divided and situated relatively to each other that when the shutters are opened or closed the projections of the one shall be in the recesses of the other, and vice versa, and when at any of the intermediate points that the projections of the one shall rest and turn on the projections of the other to admit of the free turning of the hinges to open and close the shutters or blinds, when this is combined with a cam or arbor which lies and turns in that leaf of the lower hinge which is attached to the window frame, and which extends from the knuckle of the hinge to the inside of the window so that by turning this spindle or

arbor the cam or eccentric on the end of it shall act on and lift the other half of the hinge and with it the shutter or blind that it may be thrown open or closed by any of the known modes of doing this from the inside of the window.

And my invention also consists in combining with hinges thus constructed a permanent hook and catch attached to the wall and outside of the shutter, that may be hooked and unhooked by the lifting of the shutter in the manner described above.

In the accompanying drawings (a) represents the window frame, (b) the shutter or blind, (c) the permanent leaf of the lower hinge attached to the window frame, and (d) the turning leaf attached to the shutter. The faces of the knuckle of the two halves of the hinge are made with two quadrant recesses (e, e) on opposite sides of the hinge pin (f) and located relatively to each other that the projections of the one shall fit the recesses of the other to prevent the leaves from turning when thus inserted; and as these recesses are quadrants they will fit into each other at every semi-revolution of the hinge to fasten the shutter when opened and closed. The turning part of the hinge is lifted by a cam (g) on the end of a spindle (h) that turns in the permanent leaf (c) of the hinge; the inner end of the spindle which extends to the inside of the window has a handle (h') attached to it by which it is turned to lift the other half of the hinge and the shutter attached to it. The cam formed end of the spindle turns in a recess in the knuckle of the hinge, and the spindle turns in a box formed in the leaf, about one half the length of the box (i) being on one side, and the other half (j) on the other side, to admit of molding, that the hinge may be cast; and as the part (i) of the box is made in that part of the leaf which is let into the wood of the window frame, the spindle at this part runs between the wood, and the semi-box (i) so that by these means the spindle is sustained in its position and the hinge can be applied and secured in place in the same manner as any other hinge. From the foregoing it will be evident that when the spindle is turned the cam at the end will act on the under face of the knuckle of the upper half of the hinge and lift its projection out of the recesses of the lower half and permit the two to turn on each other, and when the

handle is liberated its weight will carry it down and turn back the cam, so that when the shutter is thrown open or closed the weight of the shutter will clutch the hinges.
5 But as the wind acting on the shutter when open has a great leverage power which would tend to break the hinges it becomes necessary to hold the shutter when open near the outer edge which can not be done
10 by means of a spring or weighted catches without entirely opening the window and extending the body out. This difficulty I obviate by my plan. To the outside of the shutter I attach a hook (*k*) which fits a
15 catch (*l*) attached to the wall, so that when the shutter is thrown open the hook falls behind the catch when the shutter descends by the clutching of the hinges and when it is desired to close the shutter the hook is
20 lifted out of the catch by lifting up the shutter by turning the cam spindle to unclutch the hinge. The upper hinge (*m*) may be made like the lower one, except the spindle, but it will be obvious that this may
25 be dispensed with and that a common hinge may be substituted.

The cam at the end of the spindle may be made either by cutting into the end of a cylindrical rod, or by making a projection

thereon, by an eccentric, although the simplest form is merely to cut into the end of the rod sufficiently to permit the turning half of the hinge to descend in clutching. 30

What I claim as my invention, and desire to secure by Letters Patent, is— 35

1. Making the faces of the knuckles of the two halves of the hinge with quadrant recesses in the manner of a clutch to hold and prevent the shutter from turning when either open or closed when this is combined 40 with the cam or eccentric on the end of a horizontal spindle that passes through to the inside of the window, substantially as described, whereby the shutter can be fastened and unfastened without opening the 45 window, as described.

2. And I also claim in combination with a hinge or hinges, constructed as herein described, the hook and catch attached to the wall and shutter, and which hook and un- 50 hook by lifting and letting down the shutter to clutch and unclutch the hinge, as described.

JAMES STEWART.

Witnesses:

J. J. GREENOUGH,
Js. W. THAYER.