N. H. CAMP.
Lock-Hinge.

No. 205,051. Patented June 18, 1878.

fig. 1

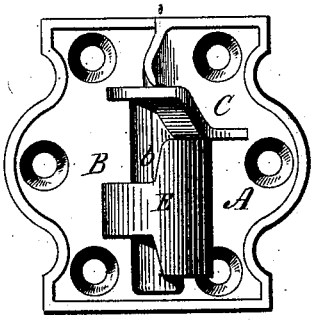


fig. 2

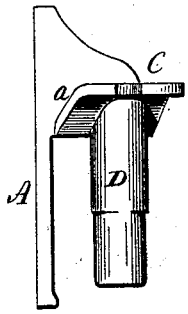


fig. 4

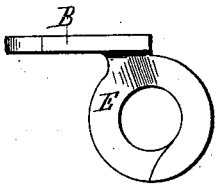
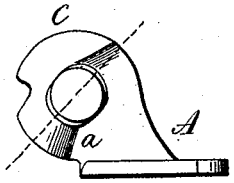


fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

NELSON H. CAMP, OF WEST MERIDEN, ASSIGNOR TO THE CHARLES PARKER COMPANY, OF MERIDEN, CONNECTICUT.

IMPROVEMENT IN LOCK-HINGES.

Specification forming part of Letters Patent No. **205,051**, dated June 18, 1878; application filed May 13, 1878.

To all whom it may concern:

Be it known that I, NELSON H. CAMP, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Blind-Hinges; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view of the hinge when the blind is closed; Fig. 2, inside view of the pintle portion; Fig. 3, top view of the pintle portion; Fig. 4, top view of the eye.

This invention relates to an improvement in that class of blind and shutter hinges which are designed to hold the shutter in its open condition—that is to say, in which there is an offset or shoulder on one part over which a corresponding shoulder or offset in the other part will fall when the shutters are open, and by the interlocking of these offsets hold the blind in its open position.

In order that the shoulder of one part may fall down over the shoulder of the other part when the blind reaches its extreme open position, and at the same time allow the blind to be closed by applying sufficient force thereto, the shoulders are inclined, so that when sufficient force is applied the shoulder on its part will ride up the shoulder on the stationary part. Were the shoulders made vertical the blind could drop, when opened, to its extreme point, but in that case would require to be lifted bodily before it could be closed. If constructed with such vertical shoulder the pintle could fit closely into the eye of the other part of the hinge; but, because of the incline of the shoulders, and the necessity of the blind dropping at its extreme open position, considerable play is necessary between the pintle and the eye. This has been accomplished by making the pintle of smaller diameter than the eye; but, while it accomplishes the desired result, the hinge is so loose as to offer a serious objection, because of the unavoidable rattling of the blind in either the open or closed position.

The object of this invention is to avoid this difficulty; and it consists in making the working portion of the pintle elliptical in transverse section, the longest diameter in substantially the radial line of the said incline, and the eye round, and of a diameter corresponding substantially to the larger diameter of the pintle, and as more fully hereinafter described.

A represents the plate to which the pintle is attached, and B the part to which the eye is attached, being, respectively, the movable and stationary parts of the hinge. From the plate A a flange, C, projects outward, and from which the pintle D extends downward. On the flange C and inside the pintle there is an incline, *a*, as seen in Figs. 2 and 3. On the other part, B, an eye, E, is formed to receive the pintle, and having formed thereon an incline, *b*, as seen in Fig. 1, and so that when the hinge is opened the incline *a* in the moving part will fall down over the incline *b* on the stationary part, and temporarily hold the hinge in that open condition—a construction so common and well known as not to require further description.

If the pintle fits closely in the eye of the hinge, it is necessary that the moving part shall turn considerably during the descent of the shoulder *a* over the shoulder *b*; hence the blind begins to descend a considerable time before it is fully open; and if the blind strikes the house before it be so fully opened, then the inclines will not completely close over each other, and a great strain will be brought upon the hinge. To avoid this difficulty the working portion D of the pintle is made elliptical in shape in transverse section, as seen in Fig. 3, the longest diameter being in a radial line through the incline *a*. The result of this is that, while the pintle will work closely in the eye in its longest diameter, it will be allowed considerable play in a line at right angles thereto; and, as indicated in broken lines, Fig. 3, this allows the incline *a* on the one part to move vertically to a considerable extent down the incline *b* on the other part without a material opening movement of the blind. In other words, the combined action of the elliptical-shaped pintle, the cylindrical eye, and the two inclines produces substantially the same result as a vertical offset for locking

the blind in its open condition; or, in other words, the locking is made by an instantaneous drop instead of by an incline or swinging movement.

It will be understood by the foregoing that no claim is made to a hinge having inclines on the respective parts to lock the one over the other when the hinge is open, or to a loose pintle on the hinge. It is also to be understood that no claim is broadly made to constructing the pintle on one part and eye on the other, so that there may be play between the two; but

What is claimed as new, and desired to be secured by Letters Patent, is—

The combination of the two parts A B, constructed one with the pintle and the other with the eye, an incline, *a*, on the flange of the pintle, a corresponding incline, *b*, on the eye, and a pintle of elliptical shape in transverse section, the longest diameter in substantially the radial line of the incline, all substantially as described.

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