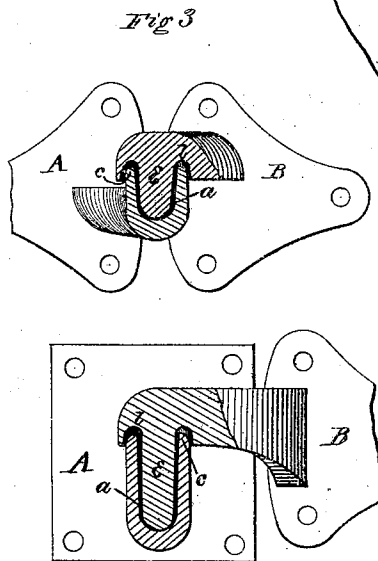
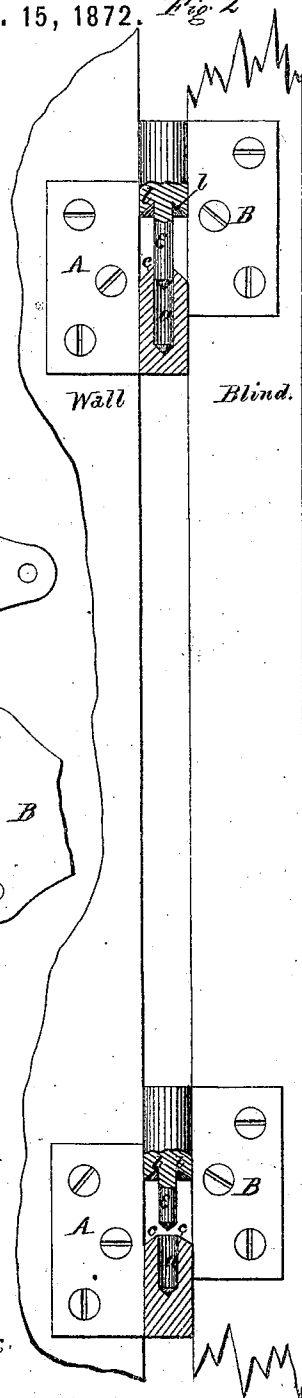
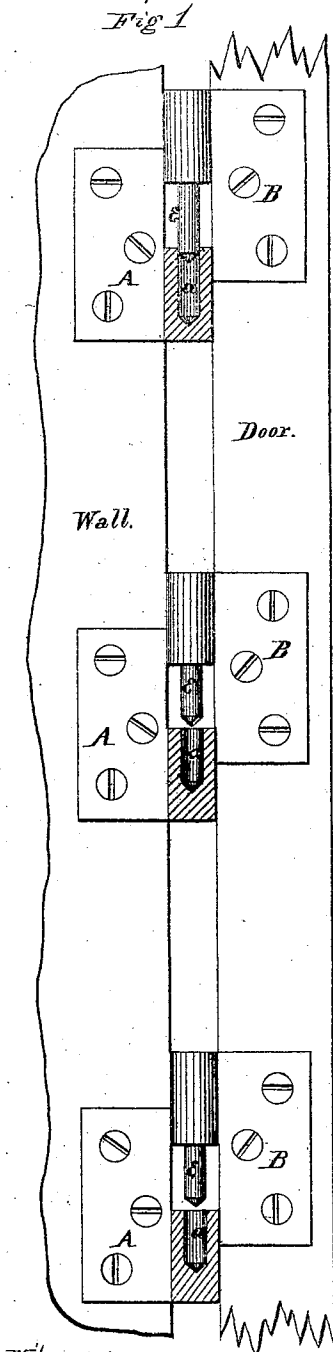


W. C. DODGE.
Improvement in Hinges.

No. 132,147.

Patented Oct. 15, 1872. *Fig 2*



Witnesses.

Harry King
Chas. C. Wilson

Inventor.

W. C. Dodge

UNITED STATES PATENT OFFICE.

WM. C. DODGE, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. **132,147**, dated October 15, 1872.

To all whom it may concern:

Be it known that I, WILLIAM C. DODGE, of Washington city, in the District of Columbia, have invented certain new and useful Improvements in Hinges for Doors and Blinds; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention I will proceed to describe it:

My invention relates to hinges; and the invention consists in making them with pintles of unequal lengths, which have their bearings on their points in oil-sockets, and in providing them, when desired, with caps fitting over the mouths of the sockets to exclude dust and rain, as hereinafter more fully explained.

Figure 1 represents my improved hinges as applied to inside doors; Fig. 2 represents them as modified for outside doors and blinds; and Fig. 3 represents a pair of gate-hinges made on my plan, all of the figures being represented partly in section for the purpose of more fully illustrating my invention.

Loose-joint hinges have long been used, but, as generally constructed, they are subject to various objections, among which is the difficulty of replacement, their liability to squeak or make harsh and disagreeable noises, and the difficulty of lubricating them. To remedy these difficulties, and to render the hinges more complete in other respects, hereinafter mentioned, is the object of my invention, and to this end I construct the hinges in pairs or sets, with the pintles of the different hinges composing the pair or set of unequal length, as shown clearly in Figs. 1 and 2. In Fig. 1, I have represented a door hung with a set of three hinges made on this plan, it frequently being necessary to use three hinges on doors of large size. In such a case I construct the upper hinge with a pintle longer than either of the others; the second one is less in length; and the lower one shorter still. When thus made it will be seen that the upper pintle can have its point slightly entered in the socket first, the attention being given wholly to it, and that when thus entered it will

take care of itself, while the attendant enters the next one in a similar manner, after which the attention can be given wholly to entering the lower one of the set. In order to enter the pintles with still greater ease, I make them pointed, as shown by the upper hinge of Fig. 1, or the pintle *e* may be left of full size at the point. In order to provide means for oiling the joint of the hinge, and at the same time prevent the oil from working out of the joint, I construct the stationary leaf *A* with the socket *a* formed in it, with its bottom closed, as represented in Figs. 1 and 2. The pintles *e* I make of such a length, that when inserted into the socket, the weight of the door or blind will be thrown upon the point of the pintle, the bearing thus being on the lower end of the pintle at the bottom of the socket *a*, instead of upon the shoulders of the two leaves *A* and *B*, as is the usual plan. When thus constructed, oil may be placed in the socket to such an amount as that when the pintle is inserted the socket shall be filled nearly up to the shoulder, and thus the bearing be kept thoroughly oiled, without the possibility of its working out of the joint, or soiling the outside of the hinge, the carpet, or clothing. As the bearing is at the extreme bottom of the socket, it follows that so long as there is a particle of oil in the socket the bearing will be lubricated, as the oil will naturally gravitate to the bottom of the socket.

In applying my improvements to the hinges used on blinds, I construct them on the same plan, so far as the differing length of pintles, the oil-socket, and point of bearing are concerned, and in addition thereto I add still another feature or improvement. This improvement consists in so constructing the shoulders of the leaves *A* and *B*, that the latter shall shut over the former, as represented in Fig. 2. To accomplish this, the shoulder on the leaf *A* is made conical, as shown at *c*, and the shoulder of the leaf *B* is countersunk to correspond, as shown at *l*, Fig. 2, so that when the parts are placed together, the joint is so closed as to exclude rain and dust which would otherwise get into the socket and displace the oil and wear away the bearing-surfaces.

It is obvious that the hinges for doors may also have this feature added, but as there is no special necessity for this indoors, where the

hinges are not exposed to rain and dust, it may be omitted. It is also obvious that these improvements may be applied to hinges for blinds having any desirable device for holding the blind open.

The advantages of hinges constructed with the improvements herein described are too obvious to require stating.

I am aware that it has been proposed to make hinges with a "ball-and-socket joint;" also, that it has been proposed to make hinges with a depending pintle fitting in a recess, and with an arm or projection for attaching a rod to open and close the blinds; also, to make wrought-iron hinges by bending a plate of iron to form a tube, and then securing a pintle therein by rivets, and having its end bearing on a plug screwed into the other part, and therefore I claim none of these; but

Having fully described my invention, what I claim is—

1. A hinge consisting of a leaf provided with an oil-socket, and a corresponding leaf provided with a pintle of such a length that, when the two leaves are united by inserting the pintle in the socket, the bearing of the hinge shall be upon the point of the pintle and the bottom of the oil-socket, substantially as described.

2. Hinges made in pairs or sets, with pintles of unequal lengths and sockets of unequal depths, so arranged that the bearing shall be upon the points of the pintles, with or without the overhanging caps, substantially as described.

Witnesses:

W. C. DODGE.

MICHAEL LARNER,
SAML. J. FRAZER.