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F. M. NELSON.

HINGE.

APPLICATION FILED JAN. 21, 1904.

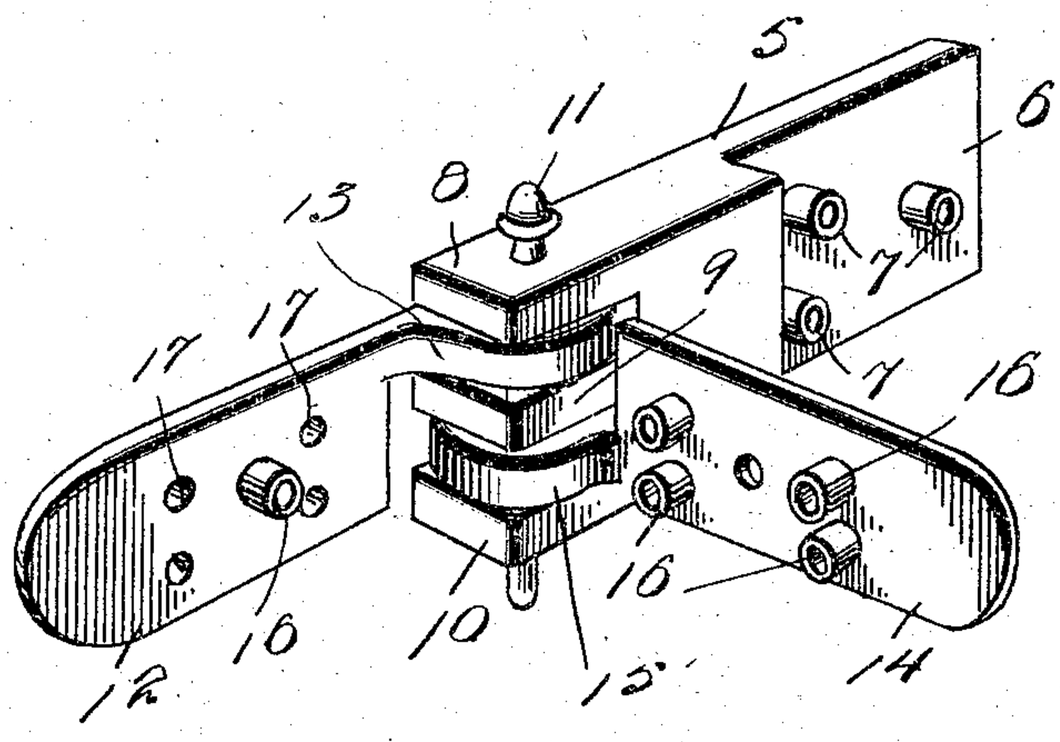

Fig. 1.

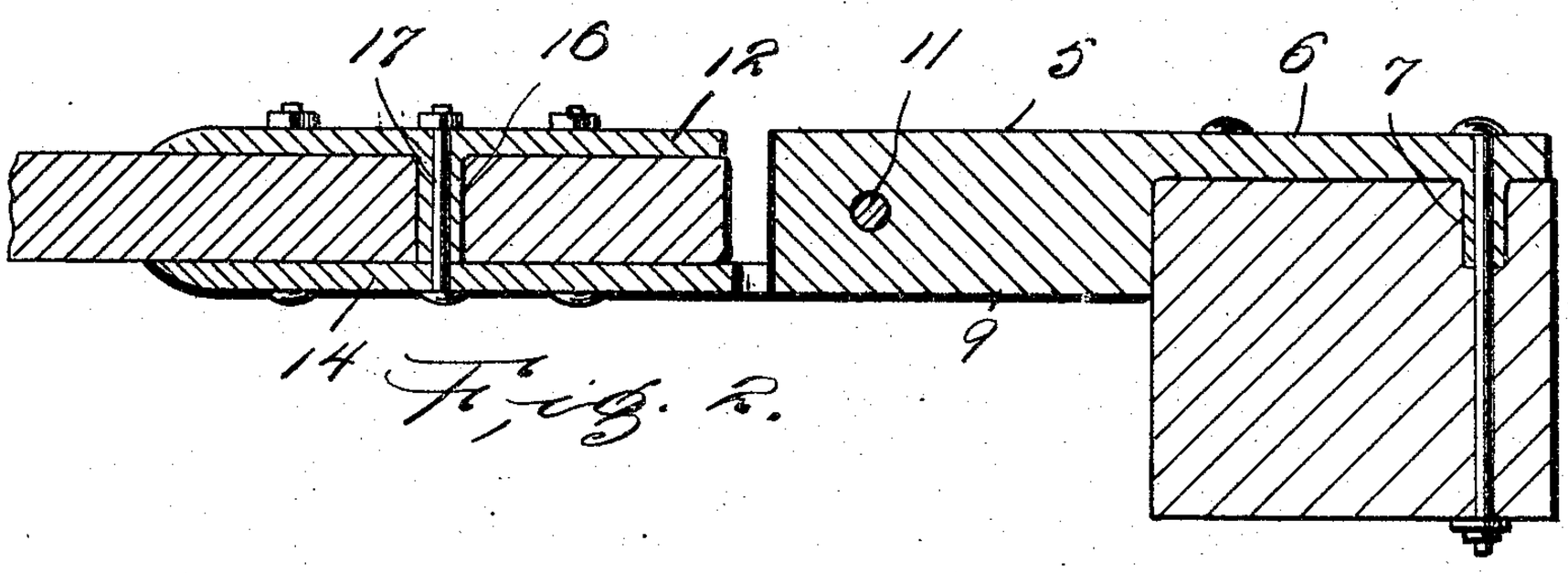

Fig. 2.

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UNITED STATES PATENT OFFICE.

FRANK M. NELSON, OF GARFIELD, TERRITORY OF NEW MEXICO.

HINGE.

SPECIFICATION forming part of Letters Patent No. 782,685, dated February 14, 1905.

Application filed January 21, 1904. Serial No. 190,023.

To all whom it may concern:

Be it known that I, FRANK M. NELSON, a citizen of the United States, residing at Garfield, in the county of Donna Ana, Territory of New Mexico, have invented certain new and useful Improvements in Hinges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hinges; and it has for its object to provide a construction which when attached to a gate or a door will be held securely thereto in such manner as to prevent slipping and consequent sagging of the gate or door.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of the hinge, showing one member of the two-part leaf alined with the opposite leaf and the other member of the two-part leaf shifted at an angle thereto. Fig. 2 is a horizontal section through a hinge embodying the present invention and through a gate-post and a portion of the gate to which the hinge is attached.

Referring now to the drawings, there is shown a hinge comprising a leaf 5, having its rear portion 6 reduced in thickness by cutting away one side thereof, and from the resultant face there project hollow studs 7, these studs being engaged in corresponding recesses formed in the jamb or gate-post to which the hinge is to be connected. The hollow studs receive bolts for holding the leaf in place. The leaf 5 is slotted longitudinally to form the spaced fingers 8, 9, and 10, through which are formed alining perforations that receive the pintle 11 of the hinge.

The second leaf of the hinge is formed in two parts and comprises a plate 12 of a thickness somewhat less than one-half that of the thicker portion of the leaf 5 and which at one corner has a longitudinally-extending finger 13, which is thickened transversely of the plate and projects at one side of the latter and which is fitted rotatably between the fingers 8 and 9 of the leaf 5. The finger 13 is perforated to receive the pintle 11, and when the plate 12 is in position to aline with the leaf 5, as illustrated, the outer side face of the plate 12 is in the same plane with the corresponding face of the leaf 5.

The second leaf of the hinge comprises a second plate 14 of substantially the same thickness as the plate 12 and having a longitudinally-extending finger 15 at one corner which fits rotatably between the fingers 9 and 10 and is perforated to receive the pintle 11. When the plate 14 is in alinement with the hinge member 5—that is, is swung into parallel relation to the plate 12 when the latter is in the position shown in Fig. 1—the outer face of the plate 14 is flush with the corresponding face of the thickened portion of the leaf 5. The finger 15 of course projects in the direction of the plate 12.

Upon the inner or mutually-adjacent faces of the plates 12 and 14 are formed hollow studs 16, the studs of the plate 14 surrounding the studs of the plate 12 and each of the plates having therethrough perforations 17 alining with the bores of the hollow studs of the opposite plate.

In attaching the hinge the leaf 5 is fastened to the post in the usual manner, while the gate is engaged between the plates 12 and 14, which latter are clamped firmly against the opposite faces of the gate by means of bolts passed through the alining perforations of the plates and studs, it being understood that perforations or sockets are formed in the gate to receive the stud. By thus engaging the studs directly in the gate the plates 12 and 14 are held securely to the gate, and the sagging that is ordinarily occasioned by movement of the usual attaching-screws with respect to the leaf of the ordinary hinge does not occur. Furthermore, long bearings or continuous bearings are provided for the clamping-bolts, and these bolts are formed to fit snugly in the bores of the studs and the alining perforations, so that slipping of the plates 12 and 14 with respect to each other is prevented.

In practice modifications of the specific construction shown may be made, and any suitable

materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

A hinge comprising a leaf having vertically-spaced fingers at one end through which are formed vertically-alining perforations, and a second leaf comprising two plates having a perforated finger at one end at their upper and lower edges respectively, said fingers being disposed between corresponding fingers of the first-named leaf with their perforations in alinement with those of the fingers of the first-named leaf, and a pintle engaged through the alining perforations, the fingers of the plates being offset, each in the direction of the opposite plate whereby the plates will lie in spaced relation when parallel.

In testimony whereof I affix my signature in presenee of two witnesses.

FRANK M. NELSON.

Witnesses:

CHARLES JOHNSON,

JOHN G. O'CONNER.