J. P. VOELKER.

EXTENSION BRACKET HINGE.

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1,158,341.

Patented Oct. 26, 1915.

2 SHEETS—SHEET 1.

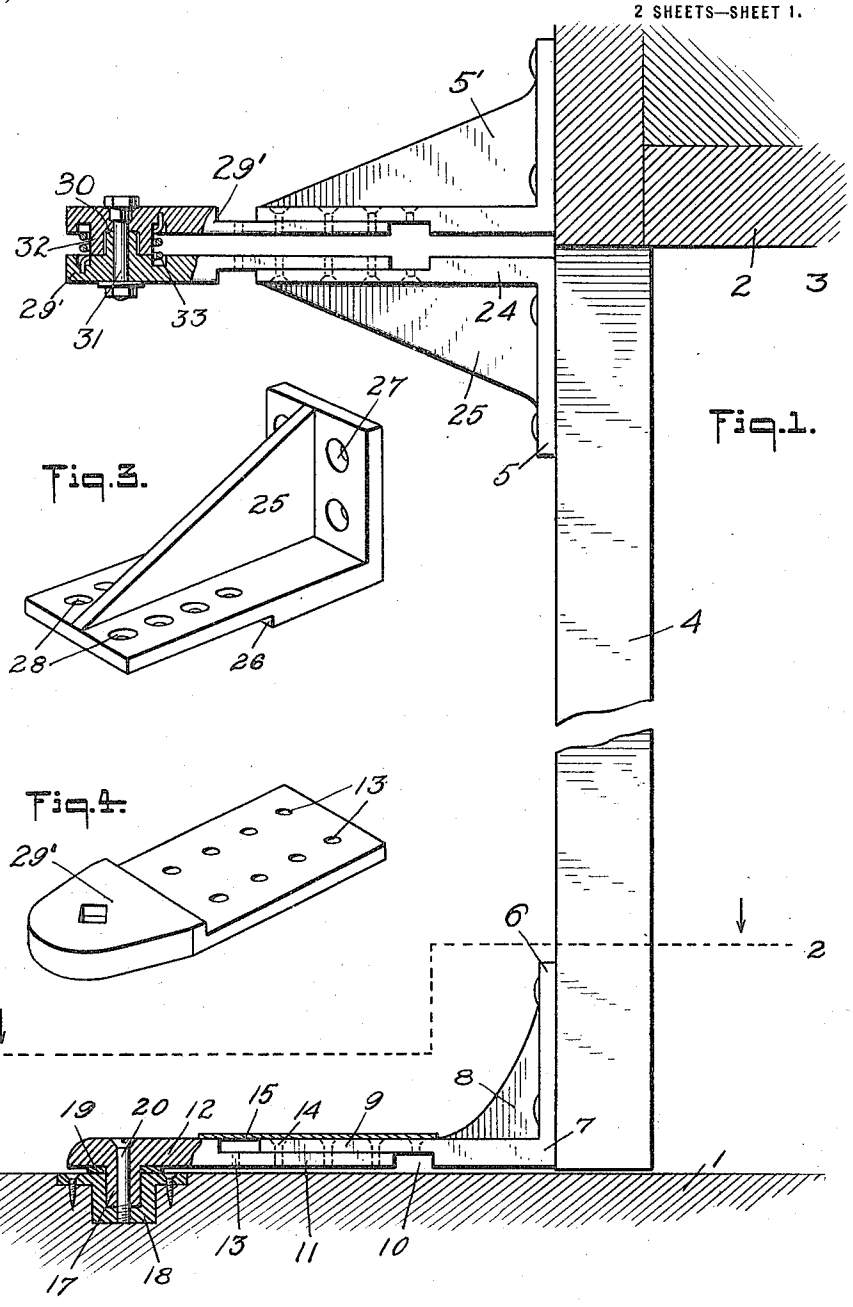


Fig. 1.

Fig. 3.

Fig. 4.

WITNESSES

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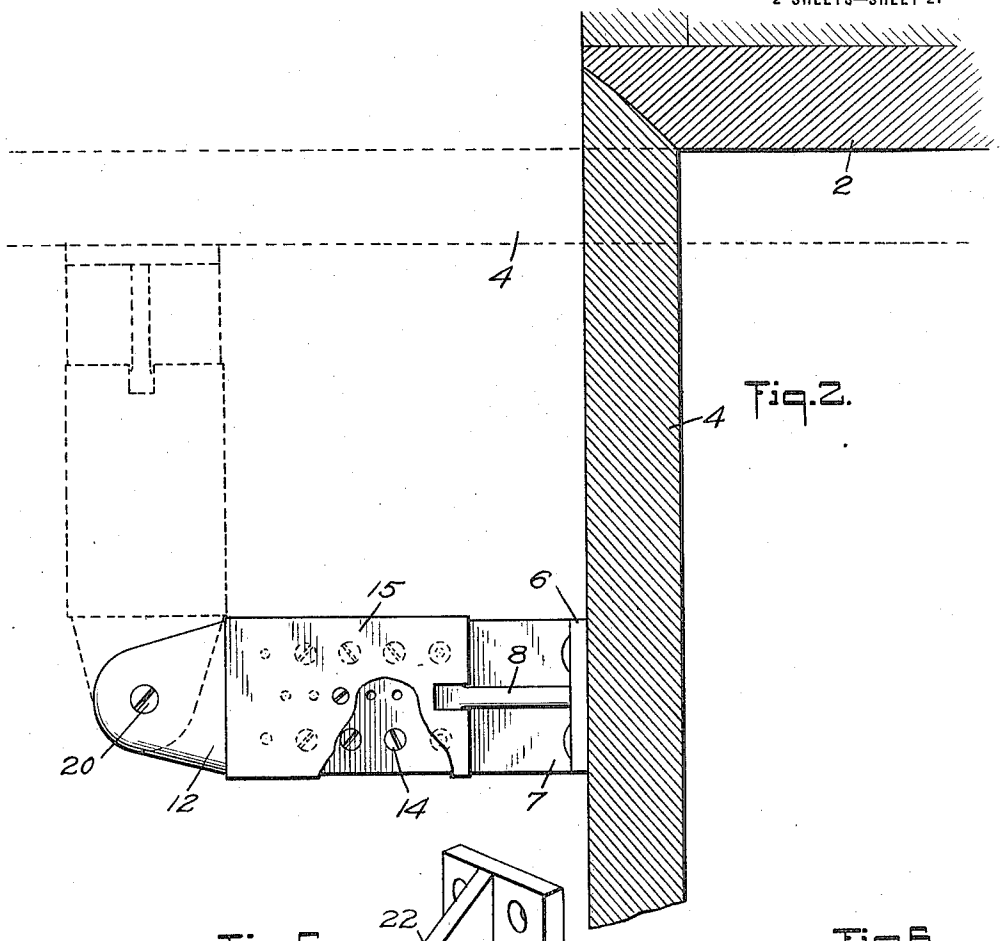


Fig. 2.

Fig. 5.

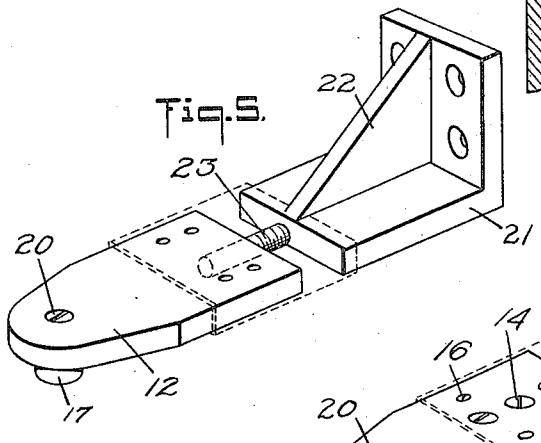
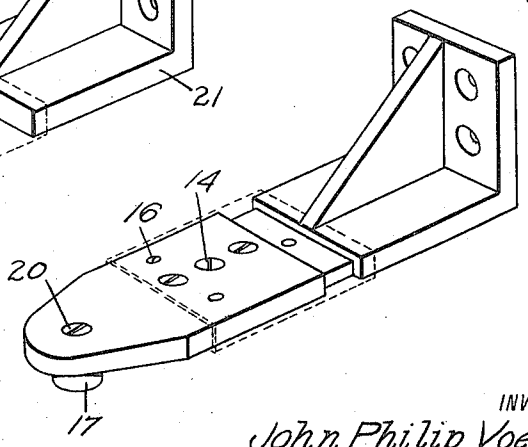


Fig. 6.



WITNESSES

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EXTENSION BRACKET-HINGE.

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Application filed March 30, 1915. Serial No. 18,117.

To all whom it may concern:

Be it known that I, JOHN PHILIP VOELKER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Extension Bracket-Hinge, of which the following is a full, clear, and exact description.

This invention relates to hinges and particularly to an extension hinge whereby the door connected therewith may be moved out of the way when the door is opened.

Another object of the invention is to provide a hinge which will minimize the space required for the door in opening and closing.

A still further object of the invention is to provide an extension bracket hinge for doors adapted to be connected with the door and at any desired point according to the amount of space in which the door must swing, the same being so arranged as to swing the door against the jamb or other support with which it is associated when the door is opened.

In the accompanying drawings: Figure 1 is a vertical section through part of a door casing and floor showing an embodiment of the invention in side elevation, certain parts being broken away for better illustrating the detail construction; Fig. 2 is a fragmentary top plan view of a door and bracket connected thereto; Fig. 3 is a perspective view of one of the brackets shown in Fig. 1; Fig. 4 is a perspective view of an extension plate associated with the bracket shown in Fig. 3; Fig. 5 is a perspective view of another form of bracket to that shown in Fig. 3; Fig. 6 is a slightly modified form of bracket to that shown in Fig. 5.

Referring to the accompanying drawings by numeral, 1 indicates a floor and 2 the door jamb or other support, while the space 3 indicates the doorway normally closed by a door 4. The door 4 is provided with an upper bracket 5 and a lower bracket 6 for supporting the door in a closed or open position. The bracket 6 is provided with a body 7 having a suitable bracing web 8 and an extension 9 cut away at 10 for receiving the cutaway extension 11 of the plate 12. The extensions 9 and 10 are provided with a plurality of apertures 13 for receiving suitable retaining screws 14 whereby the plate 12 may be locked in any desired position. The apertures 13 may be arranged in a plurality of rows, as shown in Fig. 4, or in a single row as shown in Fig. 6. This provision of apertures and screws allows the bracket 6 to be adjusted as to the horizontal length in order to cause the door to swing through a larger or smaller arc. In order that there will be no unnecessary obstruction a covering sheet 15 is provided which may be held in place by suitable screws 16 (Fig. 6). The sheet 15 is preferably formed from some thin metallic material and is provided with a top and sides, as shown more clearly in dotted lines in Fig. 6. This sheet or plate acts to cover the joint between plate 12 and body 7. Plate 12 is provided with a journal member or stud 17, as shown in Fig. 1, which is designed to fit into a socket member 18 secured to floor 1. A washer 19 is arranged between plate 12 and socket member 18, while a retaining screw or bolt 20 is provided for holding plate 12 properly in position without interfering with the rotary movement thereof.

A modified form of bracket is shown in Fig. 5 which may be used in place of the bracket 6. This bracket is provided with a body 21 having a suitable brace 22 and also supplied with a threaded extension 23 which fits into a threaded aperture in plate 12′. By the provision of the threaded projection 23, plate 12′ may be adjusted whenever desired for properly spacing the door 4 from the retaining bolt 20.

Arranged at the upper part of door 4 is the bracket 5 and on the support of door casing 2 is arranged a bracket 5′ which is formed similar to bracket 5 and will therefore need no additional description. Bracket 5 is provided with a body 24 having a suitable bracing web 25 and with a notch portion 26. A plurality of apertures 27 are provided for securing the bracket in place on a door, and a plurality of apertures 28 are provided on the horizontal part of the door which register with the apertures 13 on the plate 29. Plate 29 is secured to the body 24 by suitable screws passed through apertures 28 and entering the threaded aperture 13, as shown in the upper part of Fig. 1. Plate 29 is provided with a stud or bearing member 30 through which bolt 31 fits, bolt 31 also fitting the plate 29′ which is provided with a stud 32 having a socket for receiving stud 30. A spring 33 surrounds the stud 32 and has one end fitting into a suitable aperture in plate 29′ so as to con-

tinually urge the door closed. If for any reason it is not desired to have spring 33 the same may be disconnected and the bracket will then act as a hinge bracket. The bolt 31 is of course in alinement with the bolt or screw 20 so that the pivotal points of the various brackets will be in alinement and door 4 may be swung around in a horizontal plane.

When the door is closed, the same is arranged as shown in Figs. 1 and 2. When it is desired to open the door, a proper pressure against the same will cause the door to move to the dotted line position shown in Fig. 2 against the action of spring 33, if the same is being used. When in the dotted position shown in Fig. 2 the door is fully open and is out of the way. It also occupies a minimum space, that is, a minimum space beyond the door frame 2 as part of the door 4 extends into the doorway 3. The various brackets may be adjusted to accommodate the door to the particular space provided and may cause the door to have a large swing or a short swing. Only a few apertures are shown in the brackets for adjustment purposes but it will be evident that a greater number may be used, or if desired a less number may be used without departing from the spirit of the invention.

What I claim is:—

1. In a hinge support for a door, a pair of brackets, one of said brackets adapted to be secured to the door and the other of said brackets being adapted to be secured to a wall above said door and in the same vertical plane as the first mentioned bracket, and means connected with said brackets and interlocking for providing a pivotal point, the bracket on the door being spaced from the edge thereof a distance at least equal to the distance of the pivotal point of the bracket from the door added to the thickness of the door.

2. In a hinge support for a door, a lower bracket secured to said door and extending normally thereto, said bracket being spaced from the edge of the door an amount equal to the distance of the pivotal point of the bracket from the door plus at least the thickness of the door, an upper bracket secured to said door in vertical alinement with the lower bracket, said upper bracket having a bearing extending therefrom, a wall bracket arranged in vertical alinement with said first mentioned brackets, said last mentioned bracket having a hollow portion for fitting said bearing, and a journal extending through said bearing in said hollow portion for connecting the parts together.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN PHILIP VOELKER.

Witnesses:
A. L. KITCHIN,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."