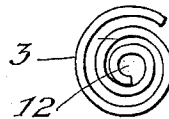
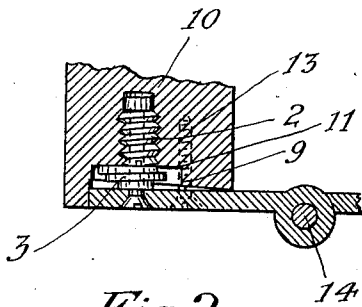
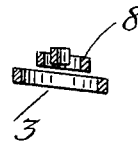
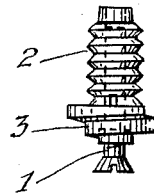
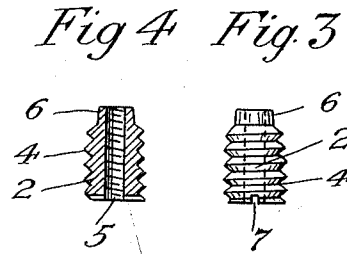
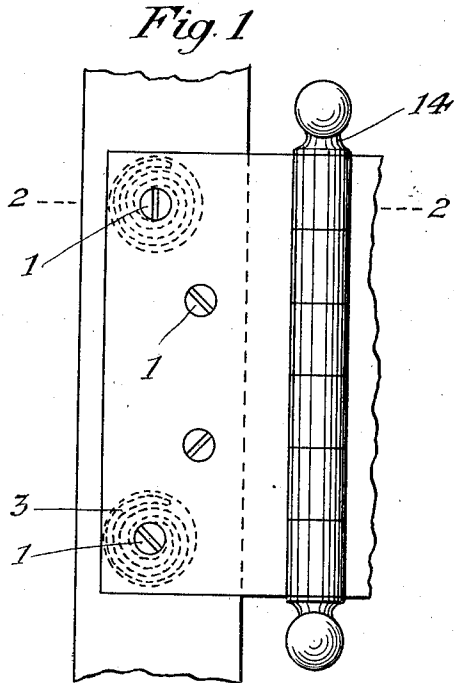


P. M. HANSON.
 ADJUSTING ATTACHMENT FOR DOOR HINGES.
 APPLICATION FILED DEC. 27, 1910.

1,002,394.

Patented Sept. 5, 1911.



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UNITED STATES PATENT OFFICE.

PETER M. HANSON, OF MINNEAPOLIS, MINNESOTA.

ADJUSTING ATTACHMENT FOR DOOR-HINGES.

1,002,394.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed December 27, 1910. Serial No. 599,417.

To all whom it may concern:

Be it known that I, PETER M. HANSON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Adjusting Attachment for Door-Hinges, of which the following is a specification.

My invention relates to a device to be used in connection with door hinges, whereby said hinges, and the door carried thereby, may be attached to the jamb so as to permit adjustment of the hinge relative to said jamb without removing hinge or door, the purpose of which is to change slightly the position of the door laterally with respect to the jamb when, either from shrinkage or swelling of jamb or door, or both, the door can no longer be properly closed.

A primary object of my invention is to provide a device to serve the above indicated purposes which shall not be a part of the hinge, nor require any special construction of hinge to be used therewith.

A further object is to provide a device of simple and inexpensive construction which can be used with any form of hinge, and can be applied to the jamb at the time of hanging the door with practically no additional labor, and without requiring of the mechanic any special skill.

Other objects and advantages of my invention will appear in connection with the detailed description thereof and will be particularly pointed out in the claims.

In the drawings, which illustrate one form of my invention,—Figure 1 is a plan of a hinge attached to a jamb in connection with my adjusting device. Fig. 2 is a section on line 2—2 of Fig. 1. Figs. 3 and 4 are elevation and sectional elevation views, respectively, of the threaded screw plug. Fig. 5 is an elevation view of my complete device. Fig. 6 is a plan, Fig. 7 is an elevation, and Fig. 8 is a sectional view of the spiral spring.

My device is designed to cooperate with the screws for fastening the hinges to the jamb, and, as previously stated, can be used with any form of door hinge. In fact, this is one of its chief advantages; for other devices proposed for performing some of the functions of my device either require a special hinge of which said devices are a part, or require a hinge with a particular arrangement and combination of screw holes in said hinges, so that such devices cannot be

used with the ordinary hinges on the market. In addition to the screw 1, with which my adjusting device is adapted to cooperate, and which may be the common pointed screw or a flat-ended cylindrical screw, as desired, my device comprises a screw-plug 2 and a spiral-spring 3. The screw-plug 2, which may be of brass or iron, or other material, as desired, is exteriorly threaded as shown at 4, and has an interiorly threaded central bore 5 arranged to receive the screw 1. The screw-plug 2 is also provided at one end thereof with a slightly conical unthreaded portion 6 for insertion into the hole bored into the jamb for the reception of the plug so that the plug will be held straight and may be readily screwed therein. The upper end of the plug is provided with a slot 7 for the reception of a screw-driver or other implement for screwing the same into the hole. The spring 3 is of substantially the same form as shown in Figs. 6, 7, and 8, being composed of a narrow flat spiral coil, said spring preferably being formed of flat wire coiled edgewise, as shown at 8 in Fig. 8.

The application of my device in hanging the hinge of a door is very simple. Ordinary hinges are used and are set into the door jamb as usual, or, if desired, the mortise seat may be slightly angular with respect to the edge of the jamb, as shown at 9. Before applying the hinge, holes will be bored at the proper places, of a diameter equal to the diameter of the screw-plugs inside of the exterior threads, as shown at 10, shallow holes for seating the springs 3 having first been bored, as indicated at 11. The plugs 2 will then be screwed into the holes 10, the springs 3 seated in the shallow holes 11, and the hinge screwed in place by the screw 1, passing through the screw-holes, the central openings 12 of the springs, and being screwed into the threaded bore 5 of the screw-plugs. If desired, screw-plugs and springs may be used beneath all hinge screws, but in practice it has been found that the outside screws may be set directly to the wood of the jamb, as indicated at 13, while the inside screws alone are combined with my adjusting device. By screwing up on the outside screws and then tightening the inside screws against the pressure of the springs 3, the hinge spindle 14 will be swung in a direction to bring the door closer to the other side to cause the same to fit more snugly when by reason of shrinkage of the

jamb or door the door has been drawn away so as not to latch readily. If the other condition exists so that from swelling or other causes the door fits the jamb 2 tightly and sticks, by loosening the outside screws slightly and unscrewing the inside screws, the springs 3 acting upon the hinge leaf will swing the hinge spindle in the opposite direction so as to bring the outer edge of the door away from the jamb and thus prevent sticking of the door in closing. By operating upon the upper or lower hinge alone, as above indicated, the door may be adjusted outward or inward at one end thereof to raise or lower the latch when from any cause the same has got out of register with the catch opening of the catch-plate.

It will thus be seen that by the use of my improved hinge attaching device, any door which fails to register properly in the jamb may easily be adjusted in position and swung so as to correct this defect without removing either the door or the hinges, although my device is capable of use with any form of hinge without any change or additional holes therein, and can be applied without materially increasing the labor of hanging the door. A further advantage is that the screw-plugs 2, having a large threaded surface, will not draw or loosen even when used in the softest wood.

I claim:

1. A device for adjustably connecting hinges to the jamb or frame, comprising a screw-plug adapted to be screwed into said frame, a screw cooperating therewith, and a spring surrounding said screw and adapted to be positioned between the jamb and the hinge leaf.

2. A device for adjustably connecting hinges to the jamb or frame, comprising an exteriorly threaded screw-plug having an interiorly threaded bore, a conical un-

threaded extension at one end and a driving slot at the other end, a hinge screw for screwing into said threaded bore, and a spring surrounding said screw and positioned between the jamb and the hinge leaf.

3. A device for adjustably connecting hinges to the jamb or frame, comprising a screw-plug adapted to be screwed into said frame, a screw cooperating therewith, and a spiral spring surrounding said screw and adapted to be positioned between the jamb and the hinge leaf.

4. A device for adjustably connecting hinges to the jamb or frame, comprising a screw-plug adapted to be screwed into said frame, a screw cooperating therewith, and a spiral spring having a narrow comparatively flat coil surrounding said screw and adapted to be positioned between the jamb and the hinge leaf.

5. A device for adjustably connecting hinges to the jamb or frame, comprising a screw-plug adapted to be screwed into said frame, a screw cooperating therewith, and a spiral spring formed of wire of rectangular cross section coiled on the longer diameter thereof surrounding said screw and adapted to be positioned between the jamb and the hinge leaf.

6. Means for adjustably connecting hinges to the jamb or frame, comprising a plurality of independent members adapted to be secured to the jamb each in independent cooperative relation with a separate screw-hole of the hinge, a screw cooperating with each of said members to secure the hinge thereto, and a spring surrounding each of said screws and adapted to be positioned between the jamb and the hinge leaf.

PETER M. HANSON.

Witnesses:

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