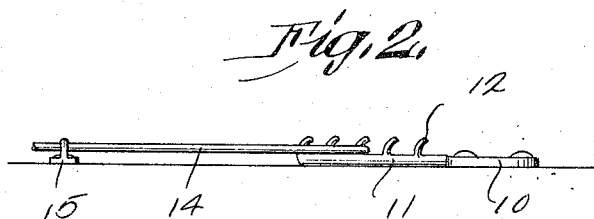
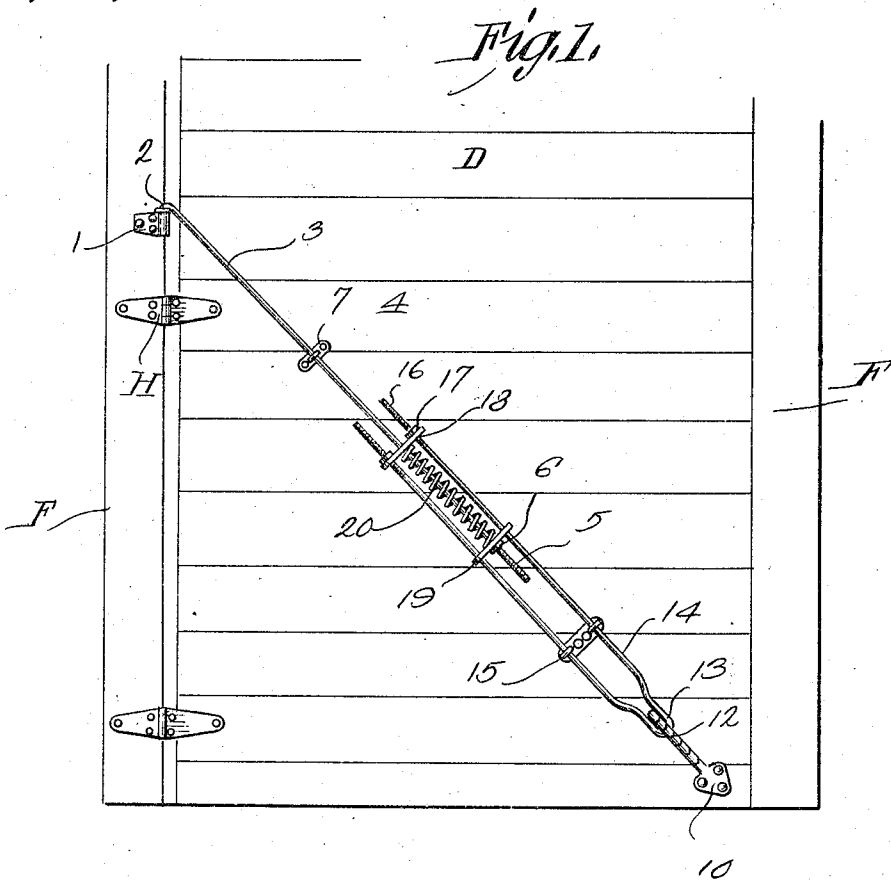


F. W. LARSON.
 DOOR SUPPORT.
 APPLICATION FILED MAY 2, 1918.

1,286,664.

Patented Dec. 3, 1918.



WITNESSES

R. W. Hoagland
N. L. Colamer

INVENTOR

Fred W. Larson

BY

Richard Brown

ATTORNEY

UNITED STATES PATENT OFFICE.

FRED W. LARSON, OF DASSEL, MINNESOTA.

DOOR-SUPPORT.

1,286,664.

Specification of Letters Patent.

Patented Dec. 3, 1918.

Application filed May 2, 1918. Serial No. 232,078.

To all whom it may concern:

Be it known that I, FRED W. LARSON, a citizen of the United States, residing at Dassel, in the county of Meeker and State of Minnesota, have invented certain new and useful Improvements in Door-Supports, of which the following is a specification.

This invention relates to doors and gates, and more especially to supports for the free ends or edges thereof; and the object of the same is to produce an attachment which may be applied to a door or gate when it is first hung on its hinges or to an old door or gate which has become sagged, and by means of which the distortion thereof will be corrected or avoided and the parts held or restored to their normal shape.

This object is carried out by constructing my attachment in the manner hereinafter more fully described and claimed, and as shown in the drawings, wherein:—

Figure 1 is an elevation of this support applied to a door,

Fig. 2 is a top view of a portion of the same.

In the drawings the letter D designates a door hinged at H within a frame F, and I speak of this element as a door in the present case although of course it might be a gate. It is well known that these elements sag under their own weight and long usage, because almost invariably they are subjected to climatic changes and rough handling, especially if it be a barn door or a farm gate.

The result is that the device presents an unsightly appearance, and at its front or outer end it drags on the floor or ground, whereas the latch is thrown out of line with its keeper, and other troubles ensue. It is the purpose of my invention to apply a brace or support to the door to prevent it from sagging if applied when the door is new, or to correct the sagging if applied when the door is old.

Coming now to the details of the present invention, the numeral 1 designates part of a hinge constituting a socket, being in this case that part which contains a single knuckle. This hinge-leaf is secured to the frame F by any suitable means, with the axis of its knuckle preferably in alinement with the axes of the knuckles of the other hinges H. Pivotaly mounted in the knuckle of this hinge or socket is the hooked end 2 of a rod constituting the upper member 3 of

this device, said rod sliding through a guide 7 attached to the face of the door and being threaded at its lower end 5 for the reception of a nut 6.

Secured to the face of the door near its lower outer corner is a plate 10 from which a bar 11 projects obliquely upward and is provided with a plurality of hooks 12 on its face. With one of these hooks is engaged the bend 13 at the center of a U-shaped element constituting the lower member 14 of this improved device, the arms thereof being slidably mounted through another guide 15 secured to the face of the door and threaded at their upper ends at 16 for the reception of nuts 17. Under these nuts is a plate 18 through which the rod 3 slides loosely. Over the nut 6 on said rod is a plate 19 through which the two arms of the member 14 slide loosely. Between these plates a coiled expansive spring 20 surrounds the intermediate rod with its extremities resting against the plates.

In the application of this device to a door, the socket 1 is attached to the frame F as shown in Fig. 1 and the plate 10 attached to the door near its lower outer corner. The hook 1 of the upper member 3 is now attached to the socket and the bend of the lower member 14 is engaged with one of the hooks 12. The nuts 17 are run down and the single nut 6 run up until the spring 20 is put under some considerable tension, its tendency being to draw the plate 10 upward and therefore to raise the outer corner of the door. If this attachment is applied when the door is new, a very gentle tension on the spring will suffice to prevent the door from sagging. If it is applied after the door is old and has already become sagged, a little stronger tension should be imparted to the spring, and from time to time the tension should be increased so that the attachment will automatically and gradually correct the defect. The parts should be galvanized to prevent rusting.

The foregoing description and the drawings have reference to what may be considered the preferred, or approved form of my invention. It is to be understood that I may make such changes in construction and arrangement and combination of parts, materials, dimensions, et cetera, as may prove expedient and fall within the scope of the appended claim.

Having thus fully described my inven-

tion, what I claim as new and desire to secure by Letters Patent, is:—

The herein described door support comprising a socket adapted to be attached to the door-frame, an upper one-arm member having a hook hingedly mounted in said socket, a plate adapted to be secured to the outer lower corner of the door and having a bar projecting toward said socket and carrying a series of hooks, a lower U-shaped member whose center is adapted for selective engagement with one of said hooks and whose arms stand astride said upper member, a plate through which the three arms project, nuts threaded on the arms of the

lower member above the plate, a second plate through which the three arms also project, a nut threaded on the intermediate arm below this plate, an expansive spring coiled on the intermediate arm beneath said plates, and guides for attachment to the door and through which said arms are slidably mounted, for the purpose set forth.

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

FRED W. LARSON.

Witnesses:

OLE BEEKMAN,
E. E. MCGREW.

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