No. 883,775. PATENTED APR. 7, 1908.

S. W. BEESON.

DOOR HANGER.

APPLICATION FILED MAR. 4, 1907.

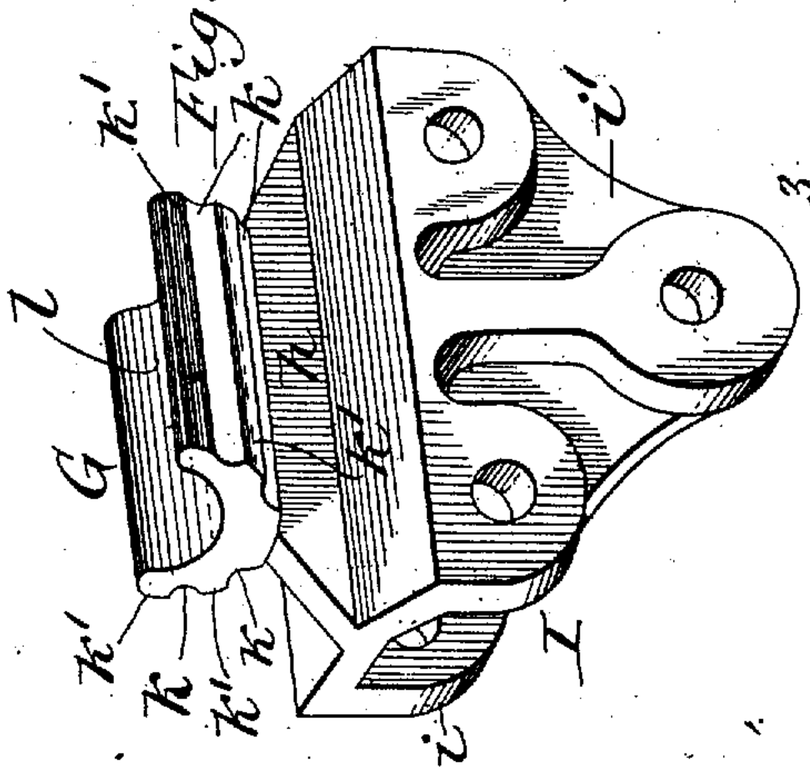


Fig. 1.

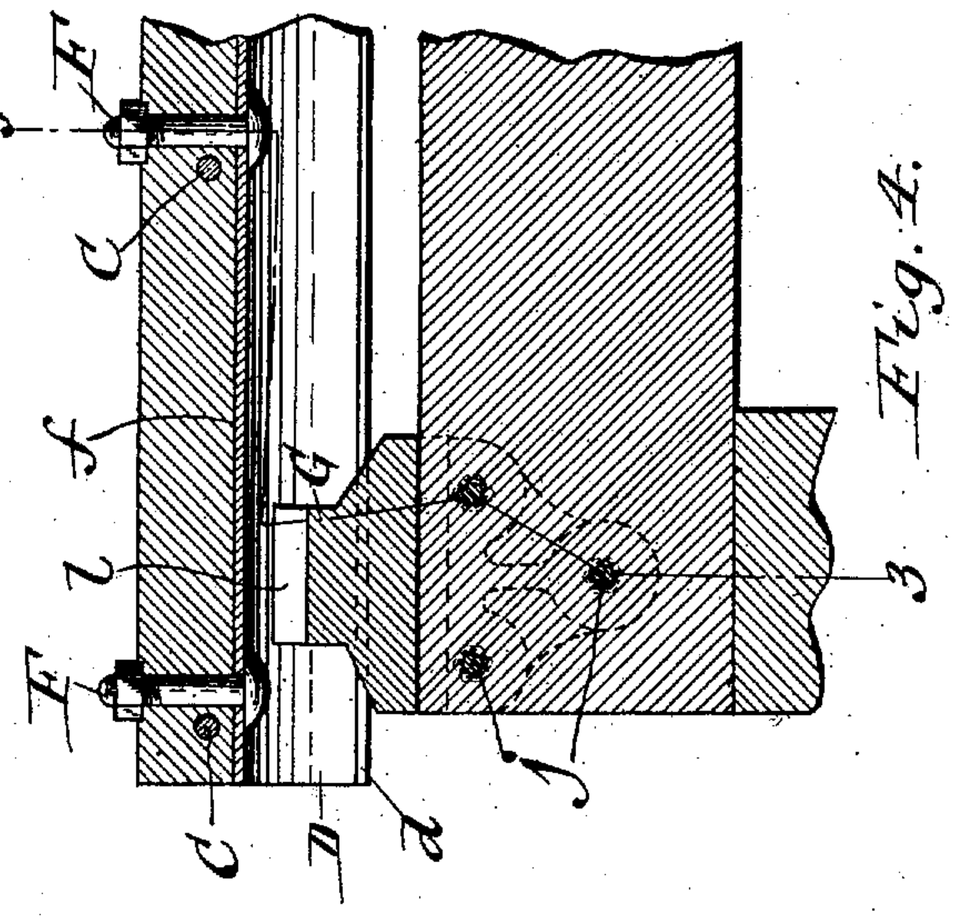
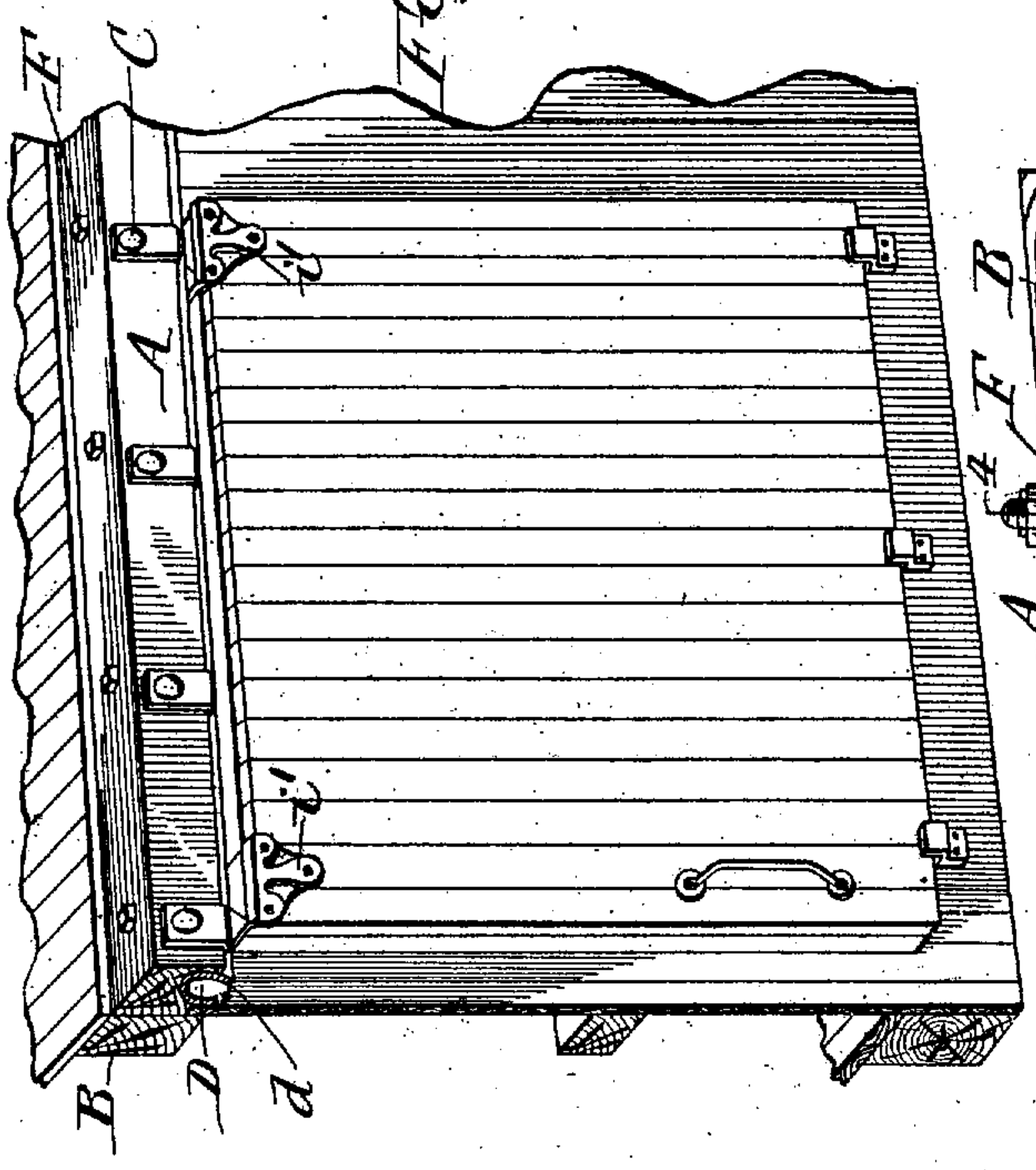


Fig. 4.



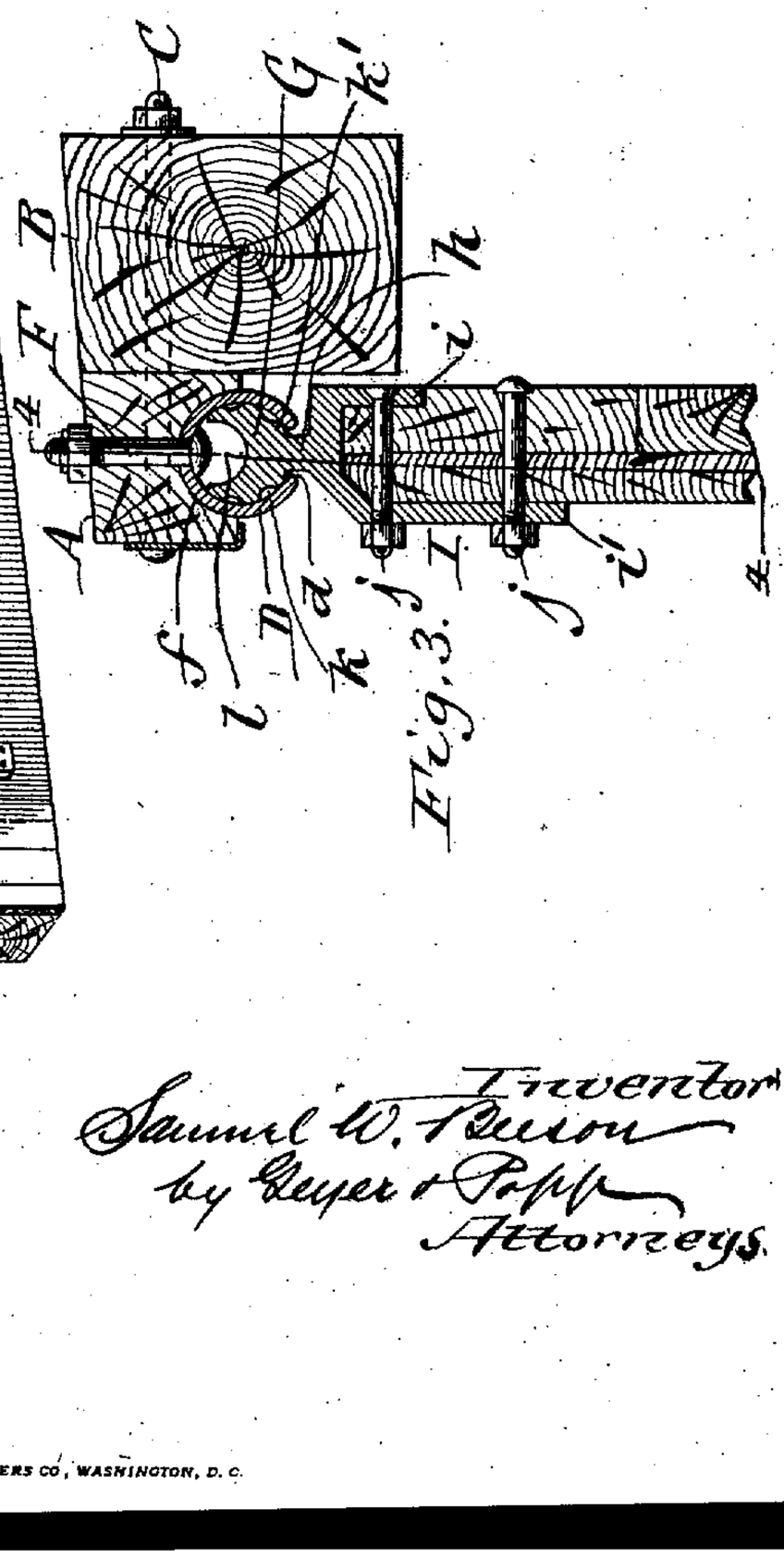


Fig. 3.

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UNITED STATES PATENT OFFICE.

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DOOR-HANGER.

No. 883,775. Specification of Letters Patent. Patented April 7, 1908.

Application filed March 4, 1907. Serial No. 360,344.

To all whom it may concern:

Be it known that I, SAMUEL W. BEESON, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Door-Hangers, of which the following is a specification.

This invention relates to a door hanger and has for its object to produce a hanger of this character which is strong and durable, and which will support the door without liability of cramping or binding the same and which possesses other advantages to be mentioned hereafter.

In the accompanying drawings: Figure 1 is a fragmentary perspective view of a box freight car having its door suspended by my improved hangers. Fig. 2 is a detached perspective view, on an enlarged scale, of one of the hangers. Fig. 3 is a fragmentary vertical transverse section taken in line 3—3, Fig. 4. Fig. 4 is a fragmentary longitudinal section in the correspondingly numbered line in Fig. 3.

Similar letters of reference indicate corresponding parts throughout the several views.

Those parts of the car or other structure with which my improved hanger coöperates are preferably constructed as follows: A represents a horizontal supporting beam secured lengthwise to the outer side of the side plate B by horizontal bolts C passing transversely through these parts at intervals. On the underside of this supporting beam the same is provided with a longitudinal groove *f* in which is seated the upper side of a longitudinal tubular track D having a longitudinal slot *d* on its underside. This track is secured in the groove of the supporting beam by vertical bolts F passing through the upper portions of the track and the supporting beam and each bearing with its head at its lower end against the bore or inner side of the track while its nut bears against the upper side of the supporting beam.

Each of the door hangers whereby the door is slidingly supported from said track consists of an upper enlargement, head or runner G which is adapted to slide lengthwise in the bore of the tubular track, a reduced portion or neck *h* projecting downwardly from the underside of the head through the slot in the bottom of the track, and a socket I arranged at the lower end of said neck and having an inner flange *i* and an outer flange i^1 between which the upper edge of the adjacent portion of the door is secured by means of bolts *j* or otherwise. The socket of the hanger is made comparatively long so as to furnish a wide bearing surface and distribute the attachment of the same to the door over a greater area but the head of the same is made shorter than said socket so as to reduce the area of its surface which engages with the bore of the tubular track and permits the door to be opened and closed more readily. This contact between the head of the hanger and the bore of the track is still further reduced by forming longitudinal grooves *k* in the sides of the head which engage with the track, thereby forming longitudinal ribs k^1 which alternate with said grooves and engage only at their outer edges with the track. These ribs are straight and engage throughout their length with the bore of the tubular track. By this means the hanger may be made comparatively light and still furnish enough strength to support the door and sufficient contact surface for engagement with the track to avoid undue wear of any part thereof. Furthermore, this grooving of the head enables the dirt to work off the surface of the track.

The upper side of the head is concaved or recessed lengthwise so as to form a clearance space *l* for avoiding interference with the heads of the vertical bolts which are arranged in the upper part of the track. A supporting head for the hanger is thus produced which is substantially crescent-shaped in cross section.

By recessing or cutting away the head at the top and grooving its sides, undue thickness of the same at any particular point is avoided, thereby permitting the same to be made of malleable iron and reliably and uniformly annealed, whereby the efficiency of the same is increased accordingly.

I claim as my invention:

A door hanger having a longitudinal head which is adapted to slide in a tubular guide way, a flange adapted to be secured to a door and a reduced neck connecting said head and flange and adapted to move through a longitudinal slot in said guide way, said head being of crescent shape in cross section with its concave side facing upwardly and its convex side being provided with alternating longitu-

dinal grooves and ribs, whereby the top of the head is prevented from striking the internal heads of bolts which support the guide way at the top; the contact between the head and track is reduced, dirt is worked off the guide way and the head can be reliably annealed, substantially as set forth.

Witness my hand this 28th day of February, 1907.

SAMUEL W. BEESON.

Witnesses:
THEO. L. POPP,
E. M. GRAHAM.