

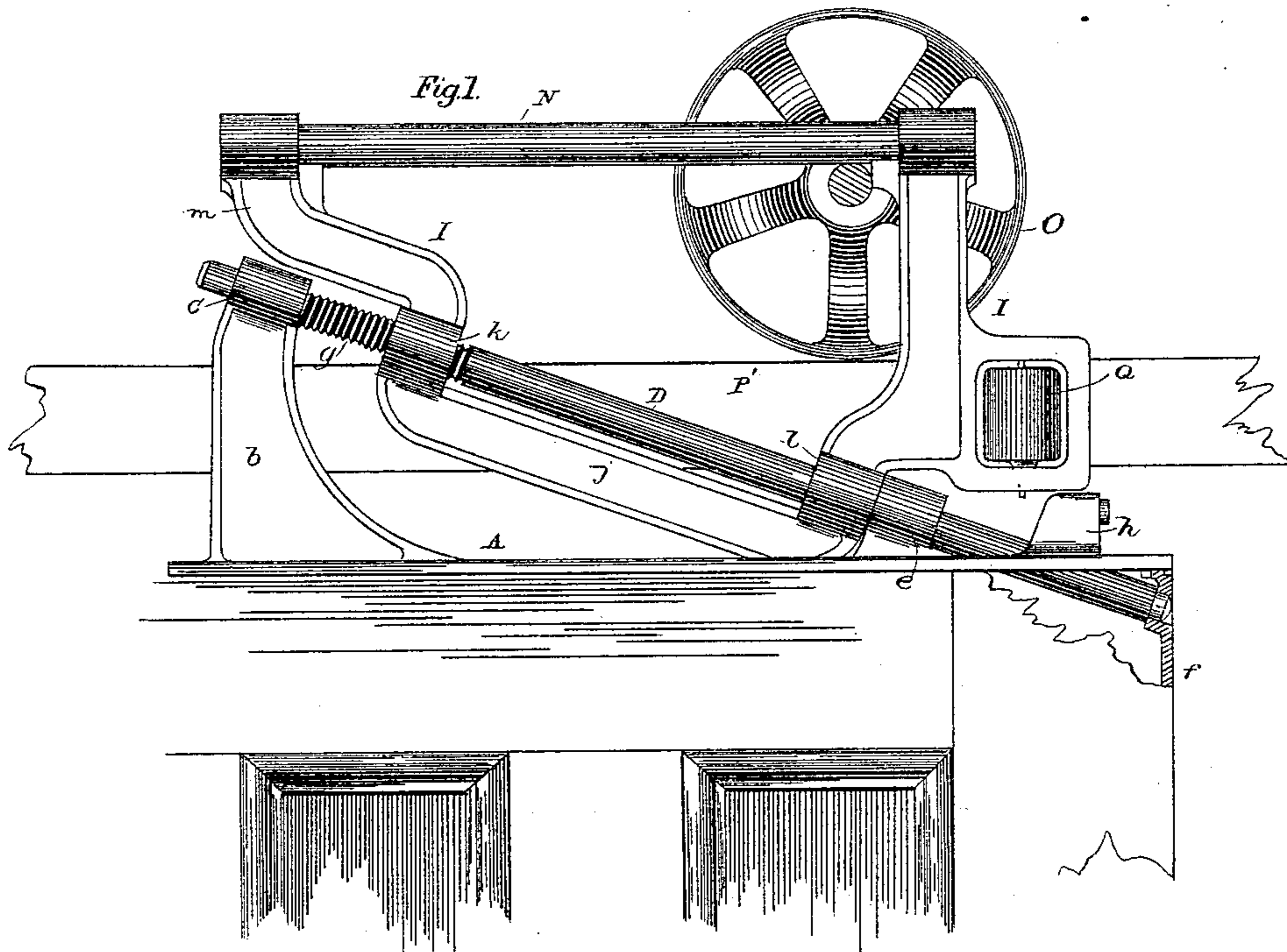
(No Model.)

E. T. PRINDLE & F. C. BAIRD.

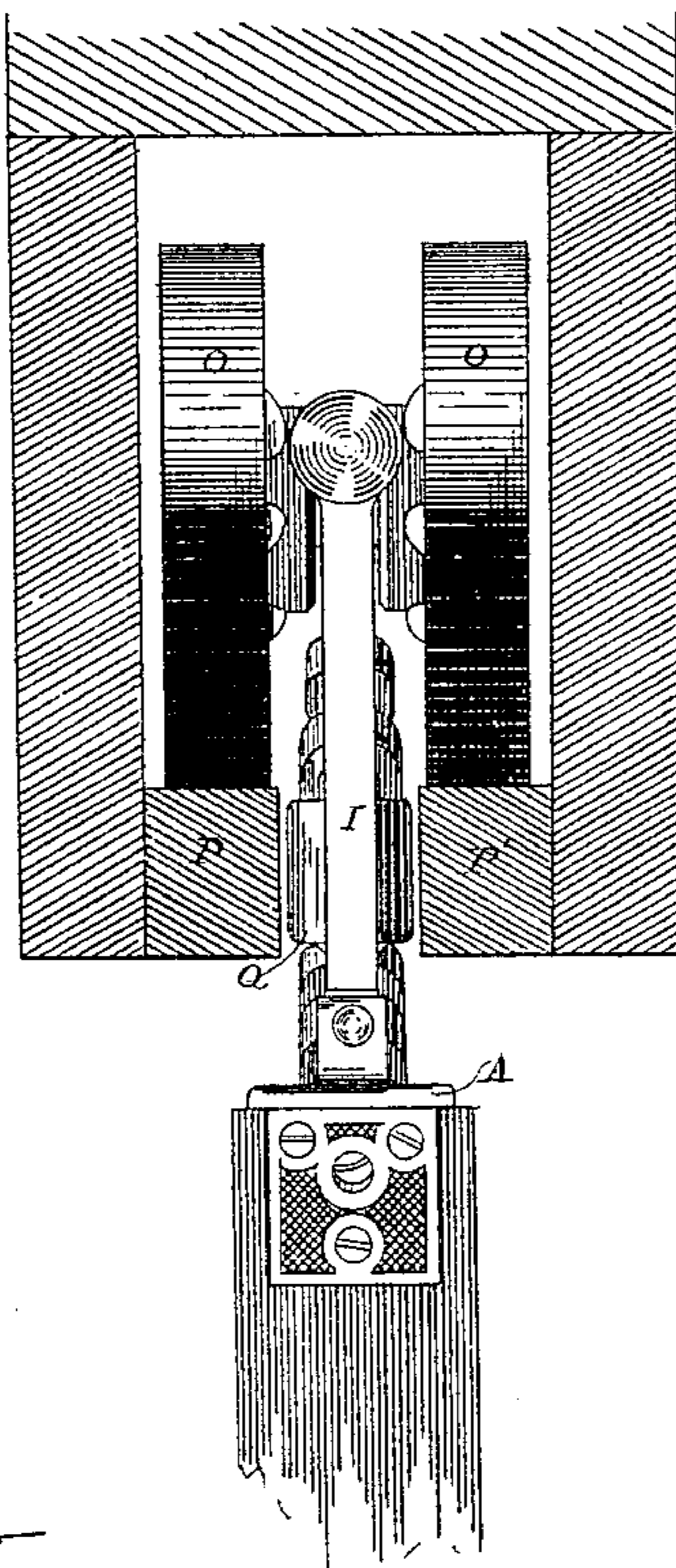
DOOR HANGER.

No. 350,639.

Patented Oct. 12, 1886.



*Fig 2.*



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# UNITED STATES PATENT OFFICE.

EDWARD T. PRINDLE AND FREDERICK C. BAIRD, OF AURORA, ILLINOIS.

## DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 350,639, dated October 12, 1886.

Application filed June 12, 1886. Serial No. 201,996. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD T. PRINDLE and FREDERICK C. BAIRD, of Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Door-Hangers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Our invention relates to further improvements upon the door-hangers for dwellings, &c., patented to Edward T. Prindle on July 1, 1884, numbered, respectively, 301,388 and 301,389.

In our present invention we adopt and retain many of the features found in those patents; but we have devised a new and very efficient construction for effecting the vertical adjustment of the hangers, and which has many advantages as to simplicity of manufacture and certainty and precision of action, and but little, if any, liability to get out of order.

Figure 1 shows in elevation, and Fig. 2 in end view, a house-door hanger illustrating our invention, a portion only of the top of the sliding door being shown, our hanger being of that class which does not require any mortise to be made in the top of the door to receive the plate or the lower part of the yoke.

A is the plate, to be applied to the door-top by means of ordinary screws, as shown, and is made, preferably, of malleable or gray iron, and with a high standard, *b*, at or near one end, and in the top of which standard is a tubular and inclined socket or bearing, *c*, adapted to receive the cylindrical end of an adjusting-screw rod, *D*, as will presently be more fully stated. At or near the other end of this plate, and in close proximity to its upper surface, is another tubular and inclined socket or bearing, *e*, the bores of both these bearings *c* and *e* being in a line with each other, so that the straight inclined adjusting-rod *D* may have its support and bearing in both these tubular sockets. The rod *D* extends from the high bearing, *e*, through the low bearing, *c*, and through one end of the plate, so that its lower end may reach to the vertical edge *f* of

the door, to be accessible for a screw-driver, when adjustment is needed; and near its higher end it is threaded for a short distance, as shown at *g*. The plate *A* is also provided with the usual buffer-standard, *h*.

The yoke *I* is peculiarly made, its under part, *j*, and which is located and works above the plate *A*, being inclined and provided with two tubular sockets, *k* *l*, through which the rod *D* is passed, the upper one, *k*, of which is internally threaded to fit the threaded part *g* of the rod. That portion, *m*, of the under part, *j*, which is above the socket *k* is so shaped as to clear the top of the standard *b* for any movements of the yoke when adjusting the door by means of the screw-rod *D*.

The rider-bar *N*, the connected pair of running wheels *O*, their double track or rails *P P'*, and the vertical guide-roller *Q*, need not be described, as they are substantially like those in the before-mentioned patents.

It will be now observed, besides the manifest cheapness, simplicity, and easy adjustment of the hanger, that the same rod, *D*, embodies within itself the functions both of a guide-rod and of an adjusting-screw; that it supports the hanger at both its ends; that the turning of this screw-rod positively, simultaneously, and equally adjusts both ends alike; that there is no labor or expense of mortising and consequently of weakening the top of the door to receive the plate or to receive any projections on the yoke; that the adjustment is as nearly perfect and true as seems possible; that most of the machine-work required is done by drilling, and the screw-rod is preferably of "gun-screw wire," which is now readily obtainable in the stores and is notoriously true, and the yoke is held on and movable by the same straight true guide-rod, which is steadily supported at both its extremities, and that there is no opportunity for derangement or imperfect working. The holes for the rod being drilled for the purpose in the parts *b*, *e*, and *l*, the rod makes a neat close fit therein. The plate, rod, and yoke are all that are needed for the adjustment, thus reducing to a very few pieces.

In our construction we avoid certain imperfections necessarily incident to hangers in which the working parts are molded, and also the unequal expansion and contraction due to

all cast metal, because the working parts of our hanger are all of machine-work and true, being drilled; and one set or ten thousand can be made, each a duplicate of all of the others, so that any one of the parts will always exactly and truly fit its other part and work accurately without tilting or shaking or having any lost motion, thus overcoming a serious difficulty heretofore apparently insurmountable.

We claim—

1. The top plate as made with the high upright, *b*, at one end, with the low upright, *e*, near its other end, and with an opening through this end, such uprights having inclined tubular bearings in line with each other and with such opening, as and for the purposes described.

2. A yoke for door-hangers having below its rider-bar the two inclined tubular sockets *k l*, one near each of its ends, one of them being internally threaded, and both of them being in the same inclined line, as set forth.

3. In combination with the top plate having the two inclined tubular sockets *e e*, as set

forth, the yoke having the two inclined tubular sockets *k l*, one of which is threaded, the yoke being adapted to be placed with its said two sockets between the bearings *e e*, and to be connected to and in line therewith, and means for connecting and adjusting the plate and yoke relatively to each other, all substantially as set forth.

4. In combination, the top plate, *A*, having the high and low uprights with inclined tubular bearings, as described, and with an opening at one end therein, a yoke having a straight rider-bar, *N*, and provided with the two inclined tubular sockets *k l*, adapted to occupy the open space between the uprights *b* and *e*, and the adjusting-rod *D*, provided with a threaded portion, *g*, adapted for the interior thread in socket *k*, said rod serving to hold and adjust the yoke, as set forth.

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