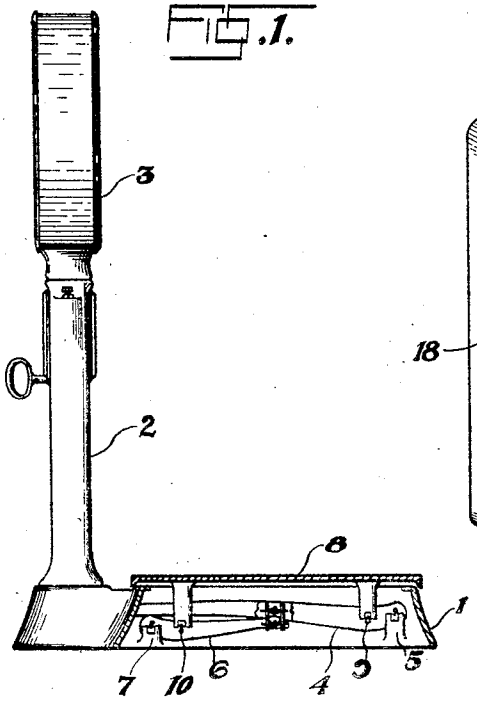
Jan. 12, 1926. 1,569,608

H. S. BERGEN

PIVOT BEARING

Filed March 22, 1920

FIG. 1.



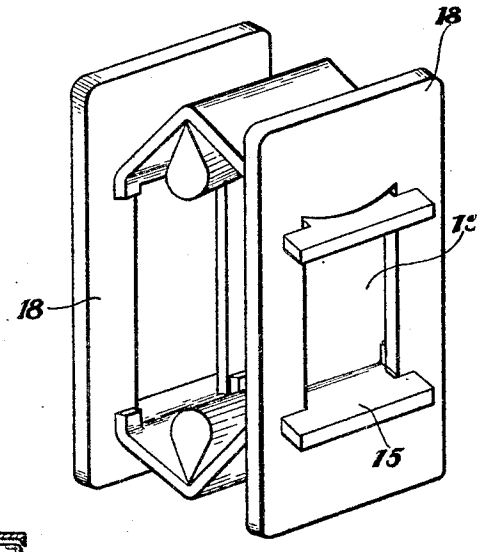
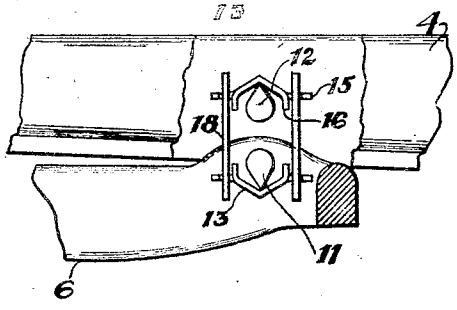


FIG. 3.

FIG. 2.



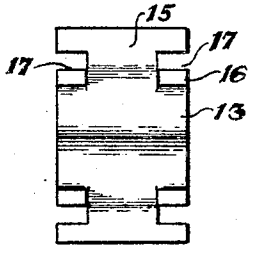


FIG. 4.

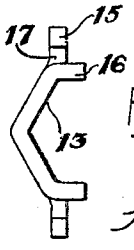


FIG. 5.

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Patented Jan. 12, 1926. 1,569,608

UNITED STATES PATENT OFFICE.

HARRY S. BERGEN, OF TOLEDO, OHIO, ASSIGNOR TO TOLEDO SCALE COMPANY, OF TOLEDO, OHIO, A CORPORATION OF NEW JERSEY.

PIVOT BEARING.

Application filed March 22, 1920. Serial No. 367,608.

To all whom it may concern:

Be it known that I, HARRY S. BERGEN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Pivot Bearings, of which the following is a specification.

This invention relates to weighing scales, and particularly to bearings for co-operation with knife-edge pivots, and one of its objects is to provide a bearing which is self-aligning to the knife edge of the pivot.

Another object is to provide a link mechanism for connecting the pivots of suspending and suspended members which is self-adjusting to allow proper seating of the pivots and bearings.

Still another object is to provide the devices aforesaid in such form that they may be readily stamped from sheet metal.

Other objects and advantages will be apparent from the following description, in which reference is had to the accompanying drawings illustrating a preferred embodiment of my invention and wherein similar reference numerals designate similar parts throughout the several views.

In the drawings:—

Figure 1 is a side elevation of a scale with the base and platform in section, parts being broken away to show the levers connected by means embodying my invention;

Figure 2 is an enlarged fragmentary elevation, with parts broken away to show the connection in greater detail;

Figure 3 is a still further enlarged perspective view of a link mechanism embodying my invention, removed from the scale;

Figure 4 is a plan view of one of the bearing members; and

Figure 5 is an edge view thereof.

I have shown my invention as applied to the center pivot or loop connection between the long and short levers of a platform scale and it is in the form shown particularly adapted for use in this connection. It is to be understood, however, that the invention is also adapted for use in other connections, such, for example, as link supports for the lever fulcrums, and that I contemplate its use wherever applicable.

In the exemplary embodiment shown the frame of the scale comprises a base 1 supporting a column 2 and head 3 containing load-offsetting mechanism of any preferred type (not shown). Within the base 1, which is of common type forming a sort of housing, is a long lever 4 supported upon fulcrum stands or brackets conventionally shown at 5. The lever 4 extends rearwardly to a point beneath the column 2, where it is connected with the load-offsetting mechanism.

A short lever 6 is fulcrumed adjacent the rear end of the scale base 1 upon brackets or fulcrum stands 7 and extends forwardly to a point below the center of the platform 8 which is supported upon the levers 4 and 6 by means of suitable pivots 9 and 10. The forward end of the short lever 6 is provided with a downturned knife-edge pivot 11 which lies directly under the upturned knife-edge pivot 12 on the long lever 4 and is supported therefrom.

The connections between the pivots 11 and 12 comprise bearing strips 13 having center portions of substantially V-shape, the apices of which receive the knife edges of the pivots 11 and 12. The end portions 15 of the strips 13 are flat and extend substantially horizontally. Rectangular lugs 16 are punched from the strip and extend inwardly at the juncture of the flat and the V-shaped portions, notches 17 being formed in the edges of the flat or end portions 15 in punching out the lugs 16.

Connecting the end portions 15 of the upper and lower bearing strips 13 are links 18 each formed of a plate of metal and having an opening 19 which receives an end portion 15 of each bearing strip. The end walls of the openings 19 are convexly curved inwardly to form a rocking contact with the bearing strip, so that the link and bearing strip will automatically assume positions conforming to the positions of the parts to which they are connected. The pivot 11 rests upon the lower bearing strip 13 and the device formed by the upper and lower strips 13 and the links 18 thus supports the pivot 11 from the pivot 12.

Owing to the manner in which the strips and links are articulated the strips will bear along the entire knife edges of the pivots 11 and 12, regardless of whether or not the edges of the pivots are parallel.

It will be apparent from the foregoing that I have devised a pivot bearing of extreme simplicity formed of easily formed

punched metal parts which can be conveniently kept in stock and readily assembled at the place of use. The upper and lower bearing strips and the connecting side strips being of identical construction, the parts are interchangeable at will, and are incapable of erroneous assembly, and may be reversibly placed to connect the pivots 11 and 12.

While it will be apparent that the illustrated embodiment of my invention herein disclosed is well calculated to adequately fulfill the objects primarily stated, it is to be understood that the invention is susceptible to variation, modification and change within the spirit and scope of the subjoined claims.

Having described my invention, I claim:

1. In a device of the class described, in combination, a bearing member having a V-shaped central portion and substantially horizontally-extending end portions, and link members having inwardly convexly curved portions engaging said end portions.

2. In a device of the class described, in combination, a bearing member comprising a V-shaped central portion and substantially horizontally-extending end portions having notches therein, and link members having inwardly convexly curved portions engaging said end portions, said link members also having portions received in said notches.

3. In a device of the class described, in combination, a bearing member comprising an inverted V-shaped central portion and substantially horizontally-extending end portions having notches therein, and plate-like link members having convexly curved portions engaging said end portions and supported thereby.

4. In a device of the class described, in combination, a bearing member comprising an inverted V-shaped central portion and substantially horizontally-extending end portions having notches therein, plate-like link members having convexly curved portions engaging said end portions and supported thereby, and a V-shaped bearing member having substantially horizontally-extending end portions supported by said link members.

5. In a device of the class described, in combination, a pair of bearing members having V-shaped bearing portions and flat horizontally-extending end portions, and a pair of link members having inwardly convexly curved portions engaging the flat portions of said bearing members.

6. In a device of the class described, a bearing member comprising a V-shaped central portion forming a bearing groove adapted to receive a knife edge pivot and substantially horizontally-extending end portions having lugs struck up therefrom forming notches.

7. In a device of the class described, in combination, a link comprising a plate having an opening therein, the ends of the opening curving inwardly in the plane of the plate, and means within said opening and engaging the curved ends thereof whereby said plate may be connected to a pair of pivots.

8. In a device of the class described, in combination, a pair of identical bearing members having V-shaped partitions oppositely arranged and adapted to engage pivots extending in opposite directions, notched end portions on said members, and a pair of identical side links connecting the notched end portions of the bearing members.

9. In a device of the class described, in combination, a pair of identical bearing members oppositely arranged and adapted to engage pivots extending in opposite directions, and a pair of identical side links connecting the bearing members and having convexly curved walls engaging the bearing members.

HARRY S. BERGEN.