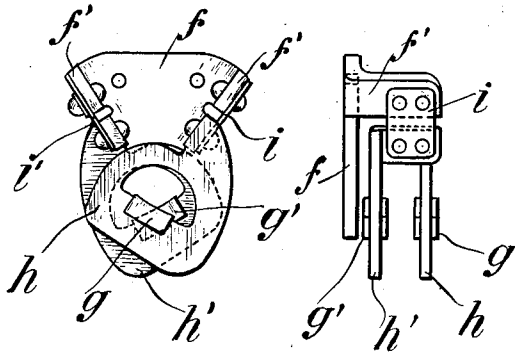
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ELASTIC KNIFE EDGE BEARING FOR MEASURING APPLIANCES

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Fig. 1 *Fig. 2*



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ELASTIC KNIFE-EDGE BEARING FOR MEASURING APPLIANCES

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2 Claims. (Cl. 308—2)

This invention relates to a device for the elastic mounting of the bearing knife-edges of measuring appliances, and is a division of my copending application filed December 30, 1929, Serial Number 417,526. It is already known to form the bearings for the movable parts of weighing machines and other measuring appliances of two crossed carrying arms which are pivotally suspended at one end and acted upon at their free ends by elastic tensile means which tend to retain these arms in the normal position.

The present invention provides an elastic knife-edge bearing, employing crossed carrying arms, which is simpler and more sensitive than the forms of construction already known for this purpose. The said carrying arms are attached at one end to the fixed stand or framework of the device concerned, the beds for the knife-edges are fitted to the free ends of these arms, and the latter are either themselves so constructed as to be elastic or are attached to the said stand or framework by means of intermediate elastic connecting members, for example leaf springs.

An example of one form of the invention is shown in the accompanying drawing, in which:—

Fig. 1 shows a bearing device in accordance with the invention, in front elevation.

Fig. 2 is a side elevation of the same device.

Referring to the drawing the bearing device consists of the framework *f* which is provided with projecting wings *f'*. To these wings there are attached the carrying arms *h, h'* which are fitted with the seatings or beds *g, g'*, and which are adapted to cross and to be elastic or flexible in a lateral direction. In the constructional example shown in the drawing the carrying arms *h, h'* are attached to the framework by means of intermediate elastic members, constituting the leaf springs *i, i'*.

Each of the said arms is approximately triangular in form, with rounded lower corners and upwardly converging side edges and each has a substantially semi-circular opening, the seatings or beds being placed at the lower sides of said openings, and said arms are parallel and spaced apart laterally. The arms are inclined in opposite directions with their middle lines or axes converging downwardly in intersecting planes so that their oppositely inclined bearing seatings present an edge in the crossing point of said seatings to receive the knife edge of a bearing element, the place on which the knife rests being midway between the ends of the bearing seatings as indicated in Figure 1 of the drawing.

I claim:—

1. A knife edge bearing comprising a supporting member and a pair of arms arranged in parallel planes and having their middle lines or axes in intersecting planes and each flexibly connected at the upper end to the supporting member independently of the other and thereby suspended therefrom and free at the lower end to permit independent movement of the said arms in their planes in opposite directions, said arms having oppositely inclined bearing seatings presenting an edge in the crossing point of said seatings to receive the knife edge of a bearing element.

2. A knife edge bearing as claimed in claim 1, in which the means whereby the arms are flexibly connected to and suspended from the supporting member constitute springs attached to said supporting member and to the upper ends of said arms.

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