No. 837,263. PATENTED NOV. 27, 1906.

H. FAIRBANKS.

WEIGHING SCALE.

APPLICATION FILED JULY 23, 1906.

Fig. 1.

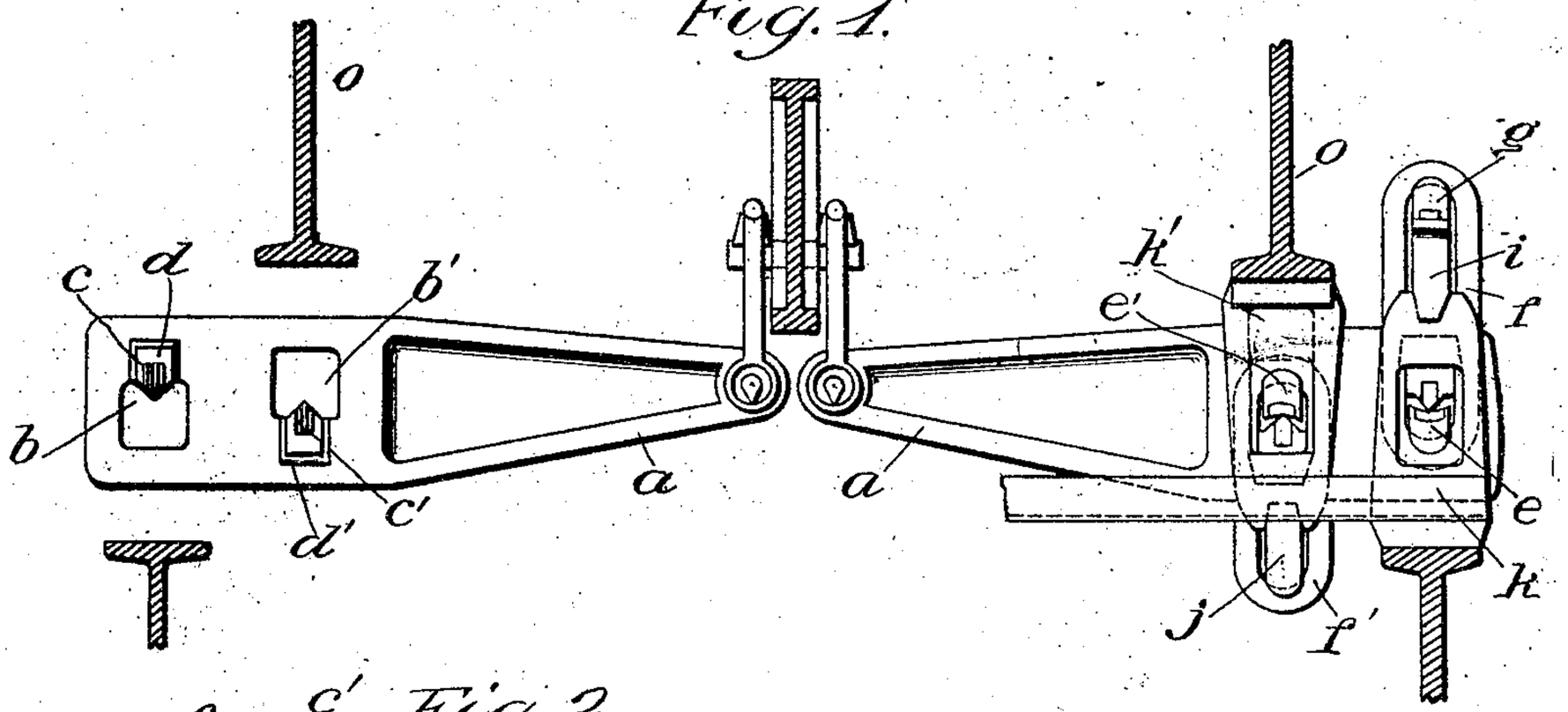


Fig. 2.

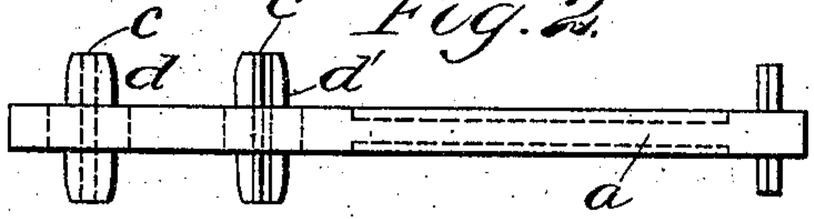


Fig. 6.

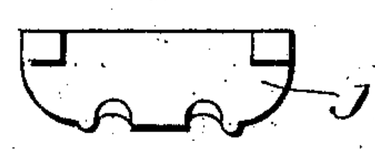


Fig. 3.

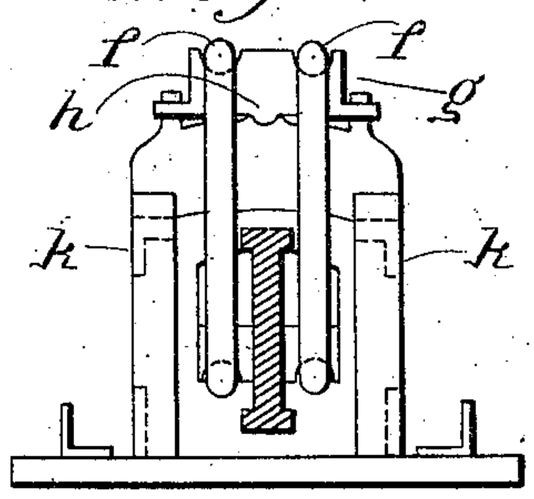
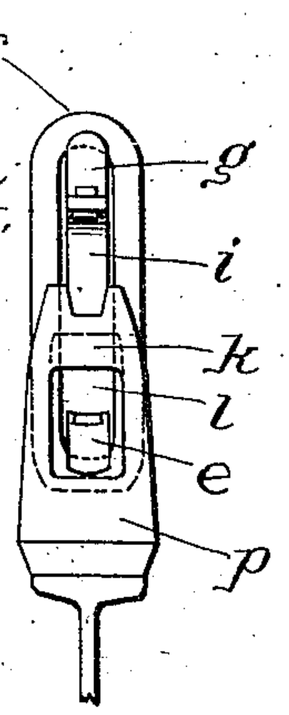


Fig. 4.



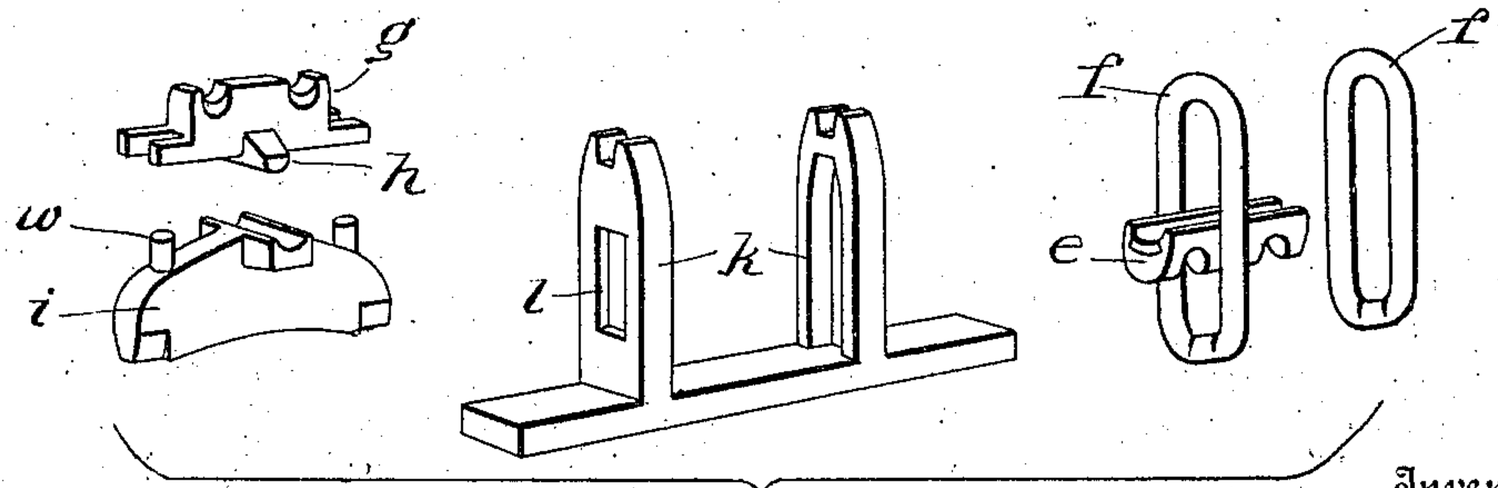


Fig. 5.

Witnesses
Albert Hopkins

Inventor
Henry Fairbanks

By C. L. Sturtevant
Attorney

UNITED STATES PATENT OFFICE.

HENRY FAIRBANKS, OF ST. JOHNSBURY, VERMONT, ASSIGNOR TO E. AND T. FAIRBANKS AND CO., OF ST. JOHNSBURY, VERMONT, A CORPORATION OF VERMONT.

WEIGHING-SCALE.

No. 837,263. Specification of Letters Patent. Patented Nov. 27, 1906.

Original application filed August 15, 1906, Serial No. 274,295. Divided and this application filed July 23, 1906. Serial No. 327,380.

To all whom it may concern:

Be it known that I, HENRY FAIRBANKS, a citizen of the United States, residing at St. Johnsbury, in the county of Caledonia, State of Vermont, have invented certain new and useful Improvements in Weighing-Scales, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This application is a division of an application for Letters Patent filed by me on the 15th day of August, 1905, Serial No. 274,295.

The present invention relates to weighing-scales, and particularly to platform-scales employed for the weighing of heavy loads, although many of its features may be employed to advantage in smaller scales of the same or of different construction.

The particular object of the invention is to provide a scale in which the lever-pivots are connected by suspension members to lever-supports and to the load-receiver.

The invention consists in the matters hereinafter described, and referred to in the appended claims.

In the accompanying drawings, which illustrate the invention, Figure 1 is an elevation, partly in section, of a sufficient portion of a platform-scale to illustrate the invention. Fig. 2 is a plan view of one of the levers. Fig. 3 is an end elevation of one of the standards, the lever being shown in section. Fig. 4 is a side elevation of the standard and bearings for the butt-end of one of the levers. Fig. 5 is a detail perspective view showing the standard, cross-piece, rocking block, saddle-block bearings, and links detached; and Fig. 6 is an elevation of the cross-piece of the platform-pivot.

In the drawings the lever *a* is provided with two openings *b b'*. The knife-edge fulcrum *c* for the butt of the lever is arranged in the opening *b* with its edge down, and the extended ends of this fulcrum are supported by projections *d* extending from the opposite sides of the lever, the knife-edge crossing the plane of the lever and being supported and reinforced for its entire length. The knife-edge *c'* of the platform-pivot extends through the opening *b'* and is similarly reinforced by the projections *d'*. The saddle-block bearing *e* is faced with hardened steel to receive the knife-edge *a*, and its lower face is provided with recesses for the reception of the lower ends of a pair of suspension-links *f*, the upper ends of which enter recesses formed in a rocking block *g*, the central lower portion of which is provided with a rocker projection *h*, fitting in a depression in the top of a cross-piece *i*. The opposite ends of the cross-piece are fitted in recesses formed in the tops of two stands *k*, that rest on the side sills *p* of the underframing.

In order to prevent displacement of the rocker-block, the cross-piece is provided with pins or lugs *w*, which enter between pairs of lugs or fingers projecting from the ends of the rocker-block. The saddle-block extends through the opening *b* and forms a bearing for the entire length of the knife-edge pivot *c*, thus avoiding the tendency to spring found in the usual type of bearings, where the knife-edges project from opposite sides of the lever and are supported by spaced bearings of the horseshoe type. On the knife-edge pivot *c'* rests a saddle-block *e'*, over which passes the upper ends of links *f'*, carrying a cross-piece *j*, and this cross-piece is received in recesses formed in the lower ends of inverted stands *k'*, depending from the platform-girders *o*. By the employment of the rocker-block and cross-piece the stress on the two links *f* is equalized and the saddle-block bearing *e* is allowed to freely swing into the same plane with the bearing *e'*. All of the stands *k k'* are provided with openings *l* to permit inspection of the bearings when necessary and to allow the removal of the saddle-blocks, and so free the levers, which in turn can be taken out without driving out the pivots.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A lever having two main knife-edge pivots provided with openings facing the edges of said pivots, saddle-block bearings extending through the openings and engaging said pivots, a rocking support disposed transversely of the lever, swinging suspension-links connecting one saddle-block to said support, and links connecting the other saddle-block to the load-receiver.

2. A lever having two main knife-edge pivots and provided with openings facing the edges of said pivots, saddle-block bearings extending through the openings and engaging said pivots, a support extending trans-

versely of the lever, and a pair of swinging suspension-links connecting one saddle-block to said support and a similar pair connecting the other saddle-block to the load-receiver.

3. A lever formed with two openings around the edges of its two main knife-edge pivots, saddle-block bearings engaging the pivots, swinging links supporting the saddle-block bearing of the fulcrum-pivot, links hanging from the similar saddle-block bearing of the platform-pivot, and a pair of supports extending transversely to the longitudinal plane of the lever and to which the links are connected, one of said supports carrying the platform.

4. A lever formed with two openings around its two main knife-edge pivots, saddle-block bearings engaging these pivots, two hanging links supporting the saddle-block bearing of the fulcrum-pivot, two links hanging from the similar saddle-block bearing of the platform-pivot and a pair of supports extending transversely to the longitudinal plane of the lever and to which said links are connected, one of the supports carrying the platform.

5. A lever formed with two openings around the edges of its two main knife-edge pivots, in combination with saddle-block bearings engaging these pivots, a pair of swinging links carrying each of these bearings, and with a rocking block from which one pair of these links is supported, the block being disposed transversely of said lever.

6. The combination with a lever having a fulcrum knife-edge pivot with its edge down, and a platform-pivot with its edge up, of bearings for these pivots, a platform-stand, a rocking block upon the fulcrum-stand, and arranged transversely of the lever, a platform-bearing, and suspension members connecting said block with the fulcrum-bearing.

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

HENRY FAIRBANKS.

Witnesses:

RUTLEY P. FAIRBANKS,

DOROTHY FAIRBANKS.