

C. M. STURGIS.
SCALE.

APPLICATION FILED AUG. 1, 1911.

Patented Dec. 10, 1912.

2 SHEETS—SHEET 1.

1,046,896.

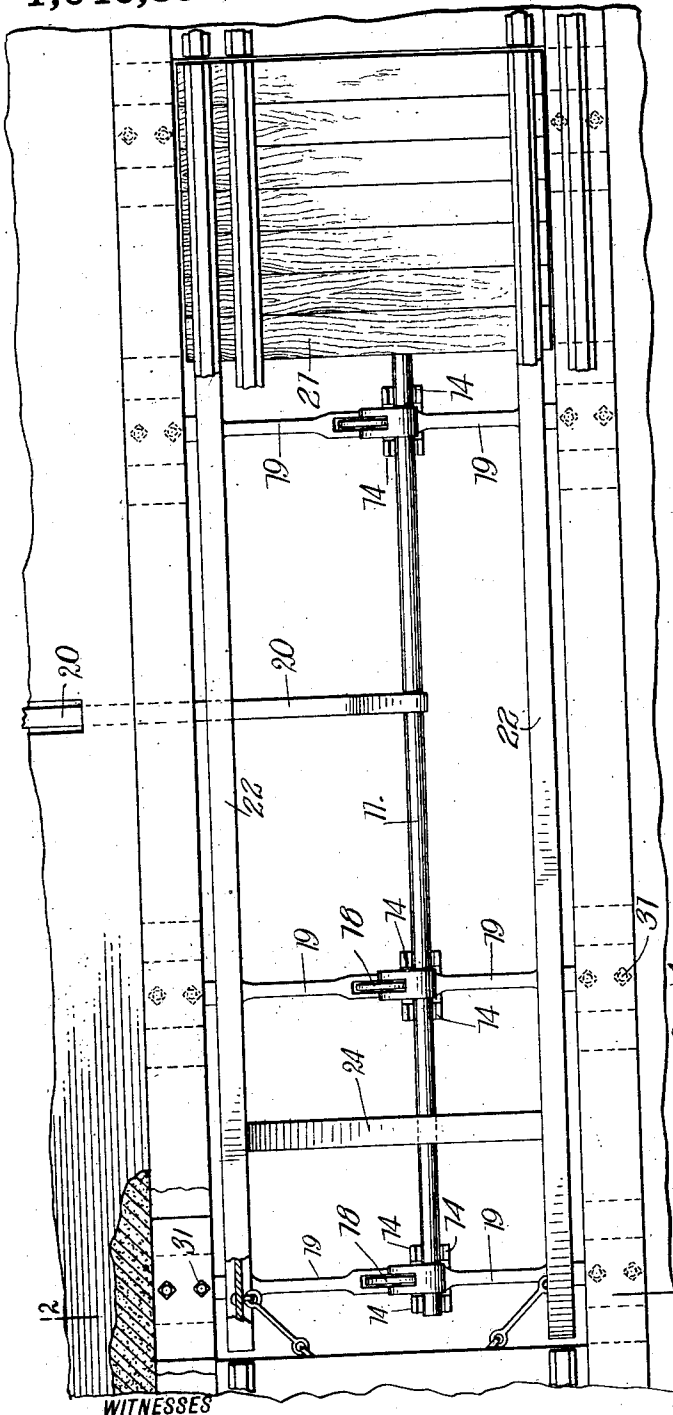


Fig. 1.

Fig. 6.

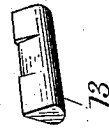
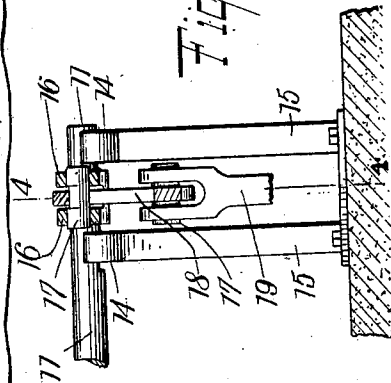


Fig. 5.



WITNESSES

George Bramley
E. M. Muddock

INVENTOR
Charles M. Sturgis
BY *Mumford Co*
ATTORNEYS

1,046,896.

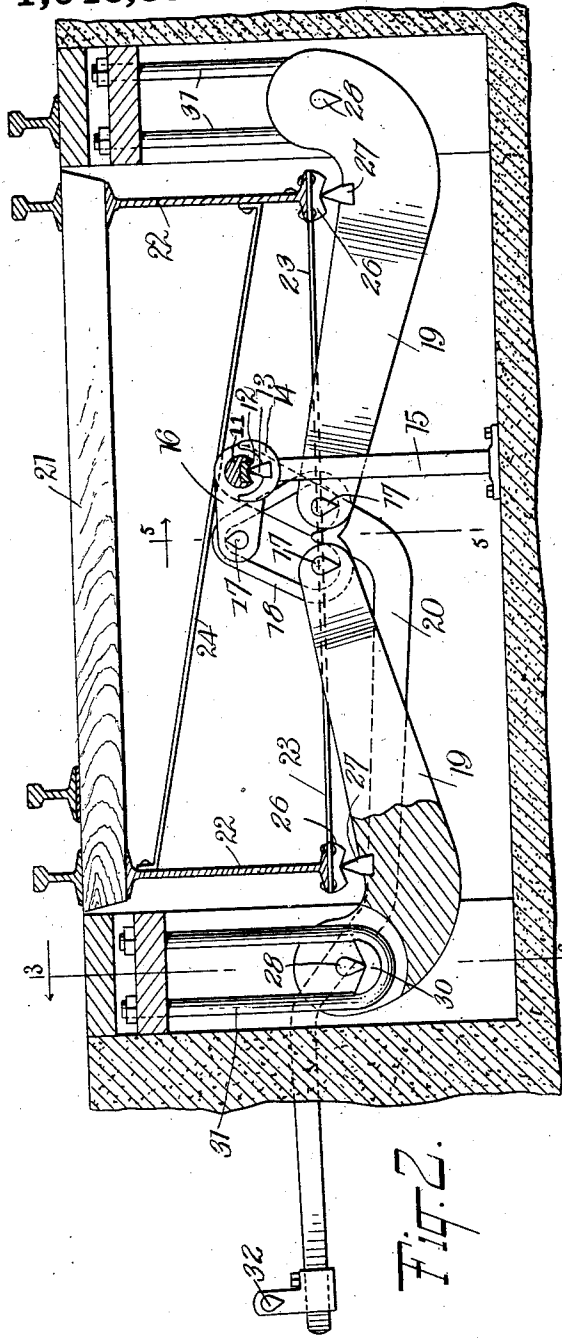


Fig. 2.

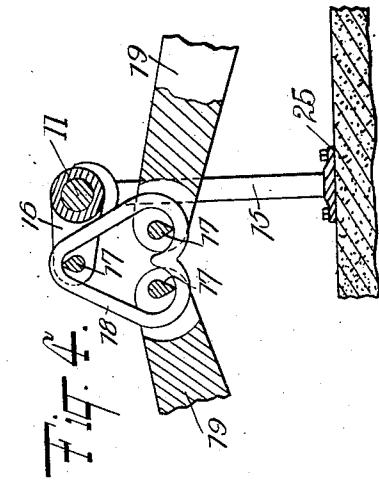


Fig. 4.

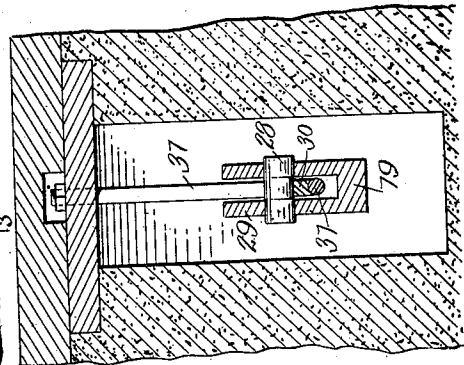


Fig. 3.

WITNESSES
George Bramley.
C. M. Sturgis.

INVENTOR
Charles M. Sturgis
 BY *Mumford & Co.*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES MERCER STURGIS, OF BIRMINGHAM, ALABAMA.

SCALE.

1,046,896.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed August 1, 1911. Serial No. 641,733.

To all whom it may concern:

Be it known that I, CHARLES M. STURGIS, a citizen of the United States, and a resident of Birmingham, in the county of Jefferson and State of Alabama, have invented a new and Improved Scale, of which the following is a full, clear, and exact description.

The present invention has particular relation to improvements in the construction and arrangement of parts composing a scale shown in patent granted to me November 23, 1909, and numbered 941,208, to which patent cross reference is here made.

The principal object which the present invention has in view is to simplify and economize the construction.

With this object in view the invention consists in providing a main rocking bar and standards therefor having knife-edge aligned supports for said bar.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a plan view of a scale constructed and arranged in accordance with the present invention; Fig. 2 is a vertical cross section taken on the line 2—2 in Fig. 1; Fig. 3 is a vertical section taken on the line 3—3 in Fig. 2; Fig. 4 is a vertical section taken on the line 4—4 in Fig. 5; Fig. 5 is a vertical section taken on the line 5—5 in Fig. 2; and Fig. 6 is a detail view in perspective, showing one of the pivot blocks employed in the present invention.

The operation, construction and arrangement of the parts forming the present disclosed scale are similar in many respects to that disclosed in the patent above referred to. In the present invention the rocking bar 11 is constructed as a solid member having formed therein, at required stations, V-shaped recesses 12. The recesses 12 are provided to form pockets for the knife edge pivots 13. The pivots 13 are rigidly held in heads 14 of the standards 15. The said pivots are upturned, as seen best in Fig. 2 of the drawings, forming thereby sensitive supports for the bar 11.

The standards 15 are separated to form an opening therebetween for the extension of one of the balancing levers 19. In this manner the balancing levers 19 and the sup-

porting mechanism therefor are balanced between the standards 15. The construction thus formed, which provides for supporting at frequent intervals the bar 11, permits the employment of said bars of different lengths, there being practically no limit to the length to which the said bar may be extended. A scale beam 20 is rigidly secured to the bar 11 and preferably midway the length thereof.

The platform 21 in the present instance is supported on two heavy I-beams 22, extended lengthwise of the body of the scale. Extended between the lower edges of the beams 22 is a series of cross tie rods 23. To further brace the construction the upper edge of one of the said beams 22 and the lower edge of the other are connected by a series of triangular braces 24. By the employment of the beams 22, the rods 23 and the braces 24 a firm but resilient construction is provided for the platform 21.

It will be understood that the standards 15 are placed at suitable intervals, according as the requirements or the work to be performed dictates; also that the bases of the said standards are extended to form a foundation to support the load for which the various scales are designed.

As seen in the accompanying drawings, short levers 16 and the adjacent ends of the levers 19 are provided with knife-edge pivots 17, 17, which rest within the encircling solid-ring link 18.

In the operation of the scales, the weight imposed on the platform 21 is transmitted through the beams 22 to the pivot blocks 26. The pivot blocks 26 are inverted, and have V-shaped recesses, to receive the knife-edge pivots 27 with which the levers 19 are provided, as seen best in Fig. 2 of drawings. The levers 19 are suspended upon the knife-edge pivots 17 and 28, the latter being extended between the bifurcated ends 29 of the levers 19. The pivots 28 are seated in the blocks 30, which are supported in the inverted loop 31. The loops 31 are rigidly connected and supported in the pit structure. When the weight is thus imposed on the pivots 27, the ends carrying the pivots 17 are moved to depress the outer end of the levers 16, to rock the shaft 11. The rocking of the shaft 11 depresses the free end of the beam 20, which is connected by

means of the pivot 32 with the steelyard of a suitable weighing mechanism.

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

In a scale of the character described, an elongated rocking bar having formed therein a plurality of inverted angular recesses; and a plurality of supporting standards for

said bar having upturned knife-edge pivots 10 adapted for seating in said recesses.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES MERCER STURGIS.

Witnesses:

GEO. WHEELFIELD,

J. A. O. RIDDLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."