

S. T. McDOUGALL.

Platform Scales.

2 Sheets—Sheet 1.

No. 10,256.

Patented Nov. 22, 1853.

Fig. 1.

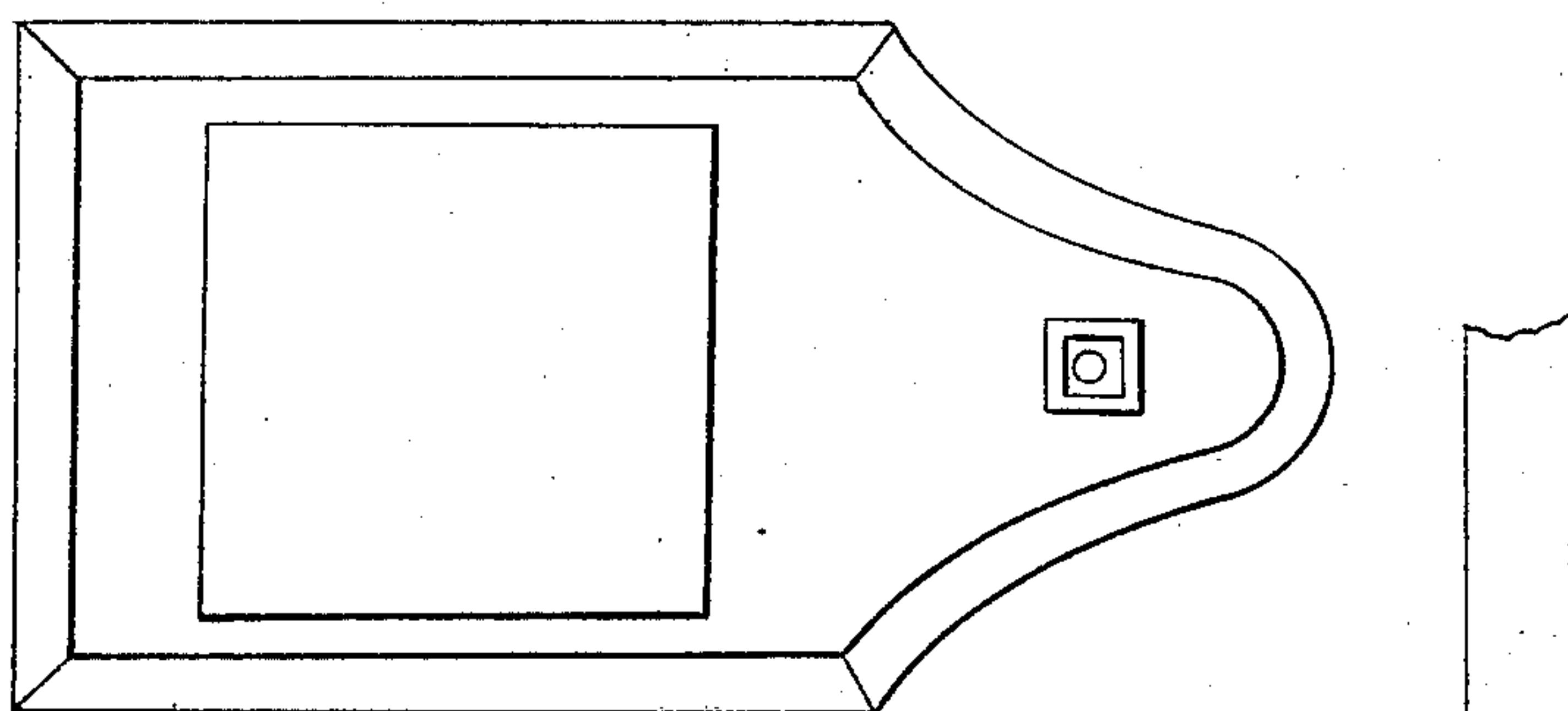


Fig. 2.

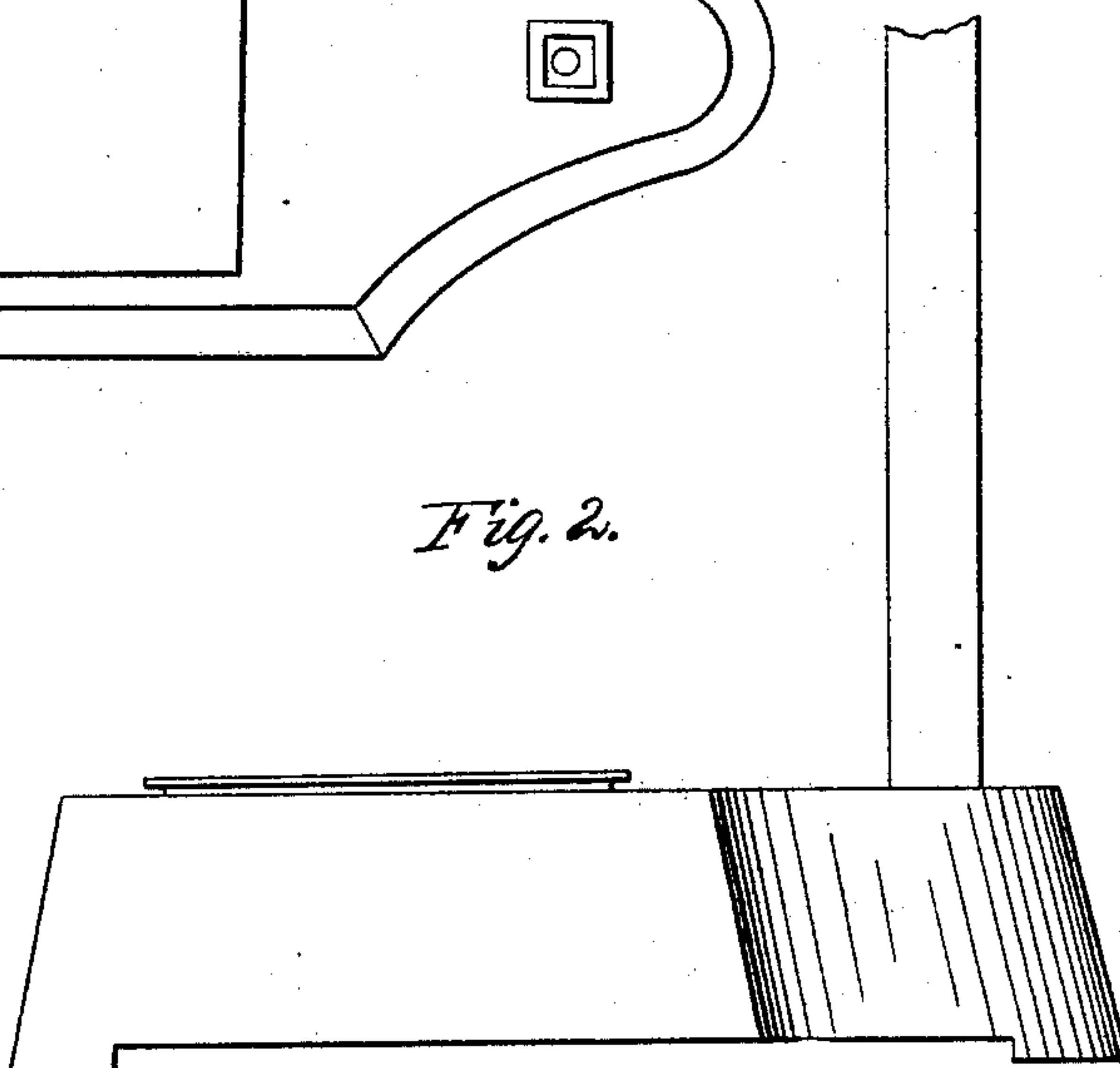
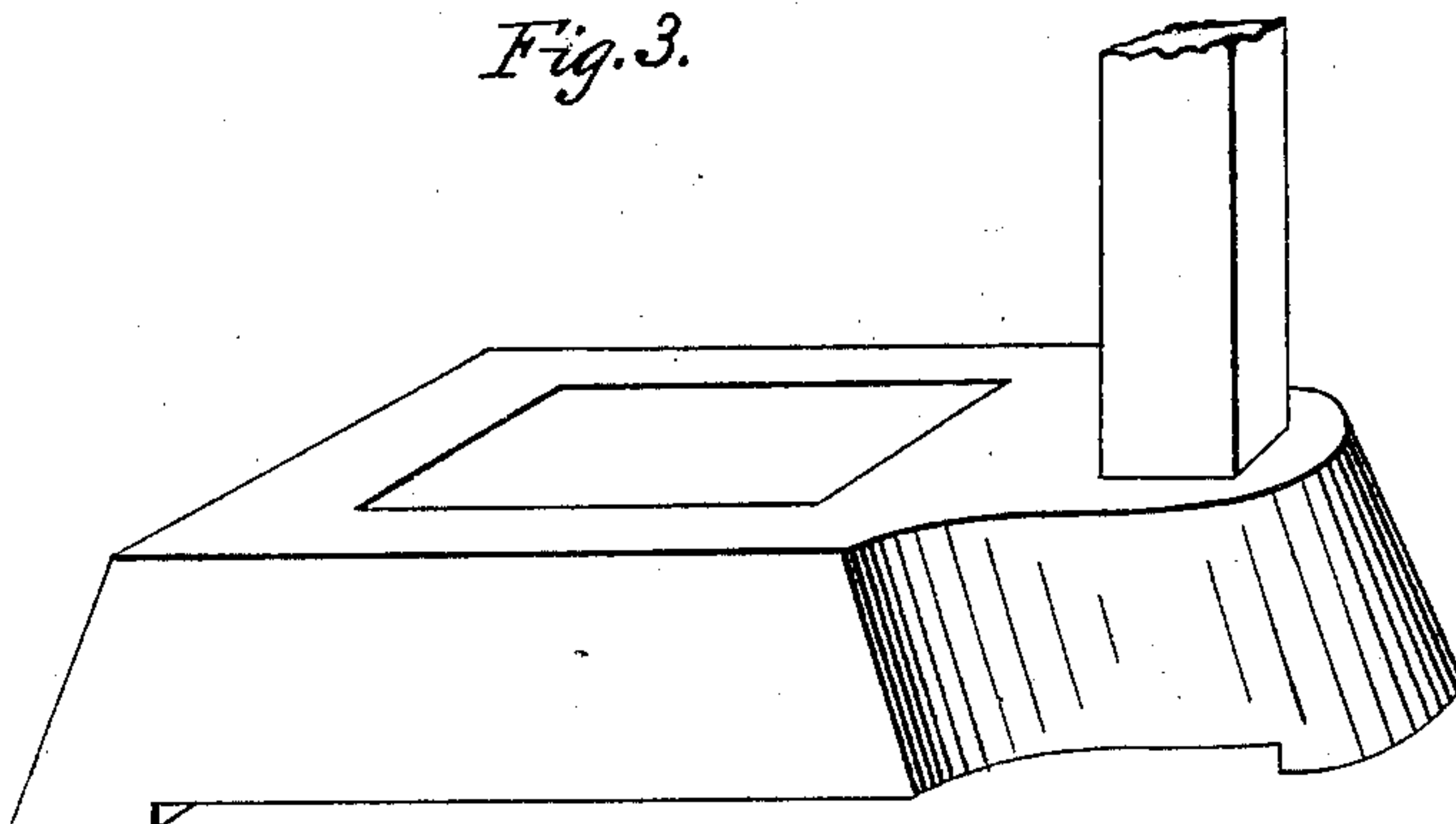


Fig. 3.



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Fig. 4.

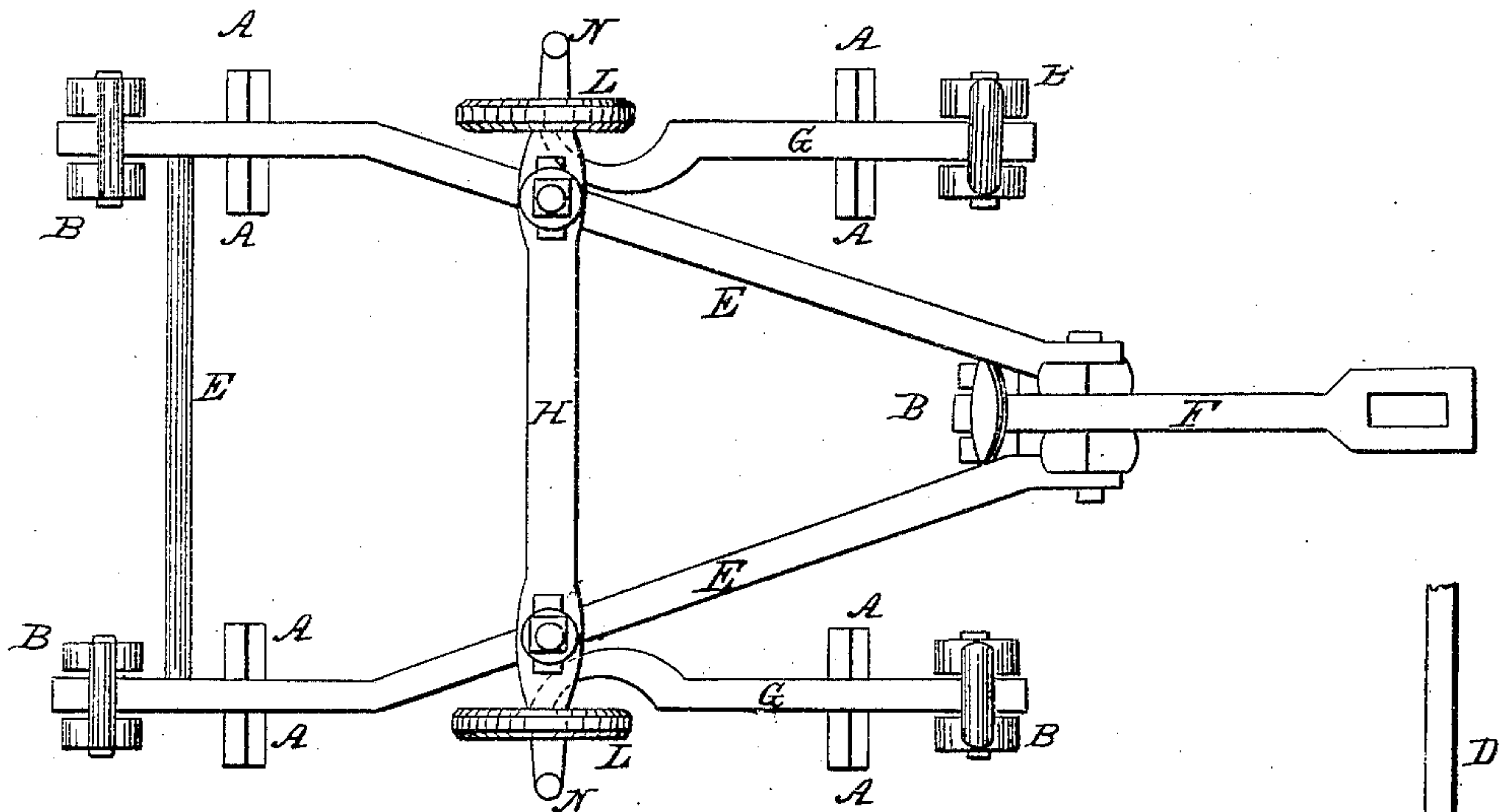


Fig. 5.

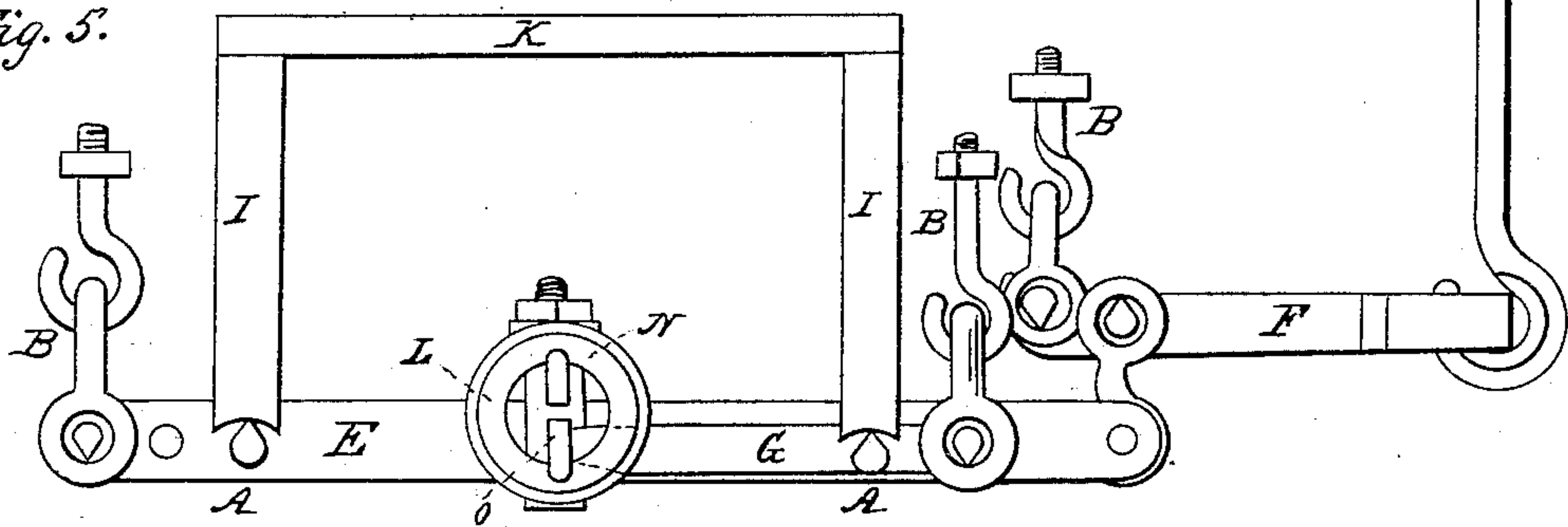
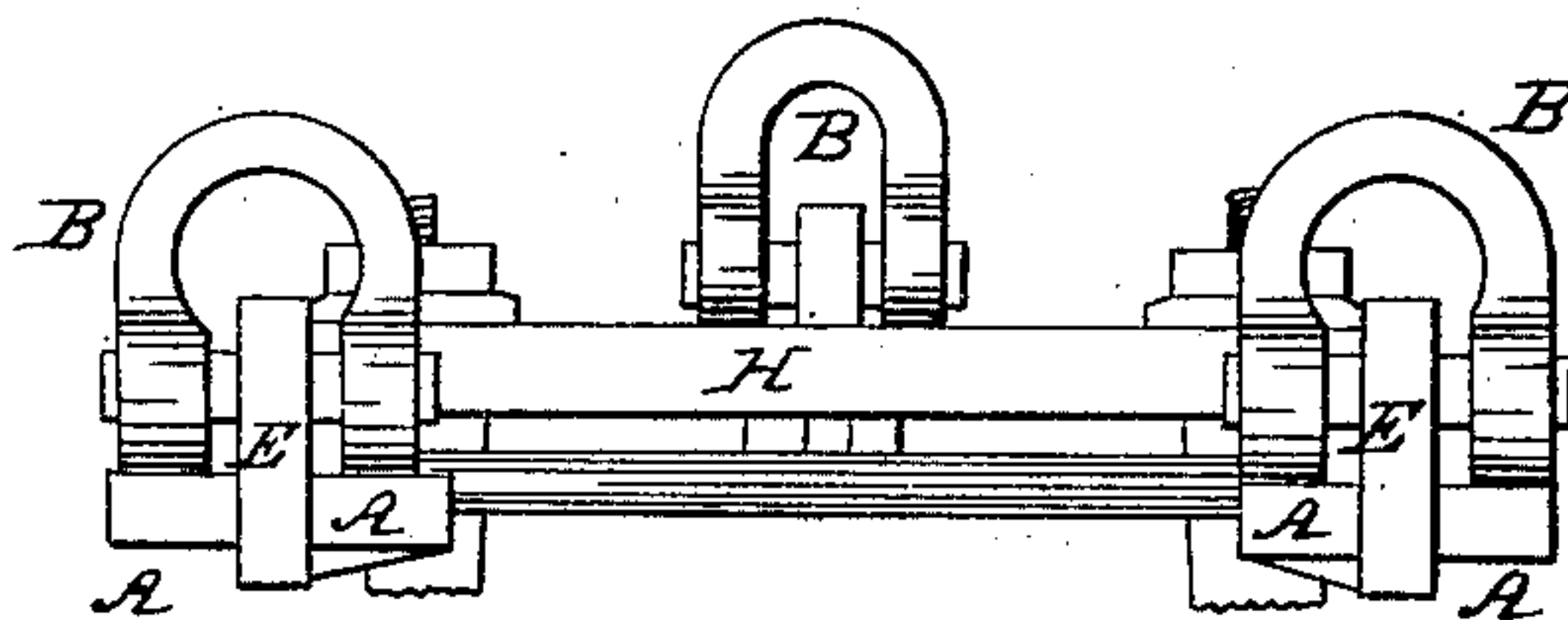


Fig. 6.



UNITED STATES PATENT OFFICE.

S. T. McDOUGALL, OF NEW YORK, N. Y.

PLATFORM-SCALE.

Specification of Letters Patent No. 10,256, dated November 22, 1853.

To all whom it may concern:

Be it known that I, SAMUEL T. McDOUGALL, of the city, county, and State of New York, have invented a new and useful Improvement in Platform and other Scales; and I hereby declare that the following is a full and exact description thereof.

To enable others to make and use my invention I proceed to describe its construction and operation, reference being had to the drawings hereunto annexed and making part of this specification.

Figure 1, plan of the platform scale; Fig. 2, side elevation; Fig. 3, perspective; Fig. 4, plan of the works; Fig. 5, side view; Fig. 6, end view.

I construct the platform scale of the dimensions and general form of those in ordinary use. The improvement I have made requires but two weights, and both securely attached to the apparatus, so there is no danger of their being lost.

Within the body of the platform I suspend the levers, (upon hooks permanent in it,) by the hanging straps marked, B, five in number. Two of them support the end of the lever, E., one supports the end of the lever F, and the other two are attached to the two side levers, G. The platform, seen in section Fig. 5, at I, K, rests upon four pairs of pivots, A, the feet, I, resting on each side of each lever. Thus two of the bearings, A, are upon the lever, E, at the rear end and operate on the lever, F, at the front, and the other two bearings, A, are upon the side levers, G, and have a direct bearing upon the rings L, which are suspended upon the cross bar, H, (which lies across the lever, E,) and produce their ultimate bearing upon the lever, F. The cross bar, H, is secured upon the lever, E, at both sides, by a clasping strap, and adjusted to the proper point by means of screws and nuts. On the outer ends of the cross bar, H, I hang the rings, L, or any loop of suitable form, into which beneath I set the ends of the levers,

G, the ends being so curved as to lie properly and easily in the rings. The proportions of all these levers may be varied to suit different purposes. By the proportions shown in the figures very light weights are used for poise to weigh all that the scale would sustain.

The chief improvement I have made consists in the addition of the forward lever, F, and its connection with the principal lever, E, by means of the cross bar, H, and its apparatus.

The advantages gained are the getting the shortness of lever required without bringing the points or bearings too near together and lessening the weight on the beam.

My invention when applied to platform scales renders them of especial value when weighing heavy goods, obviating the loss of labor and time in lifting heavy weights, two only of small size being used and those secured to the beams.

I do not limit myself to the precise form and proportions herein described, but shall vary them to suit circumstances, adhering to the principle above set forth to attain the results.

What I claim as my invention, and desire to secure by Letters Patent, is:

The arrangement of the triangular lever E, and the two independent side levers G, having their long arms suspended from knife edges attached to said lever E, whereby the final adjustment necessary to make the scale give the same weight on all parts of the platform, may be made by moving the bar H only, which carries the two last named knife edges, without the necessity of any precise adjustment of the two knife edges A, upon the levers G, to equal distances from the fulcrum of those two levers.

S. T. McDOUGALL.

Witnesses:

WILLIAM DIXEY,
L. PITKIN.