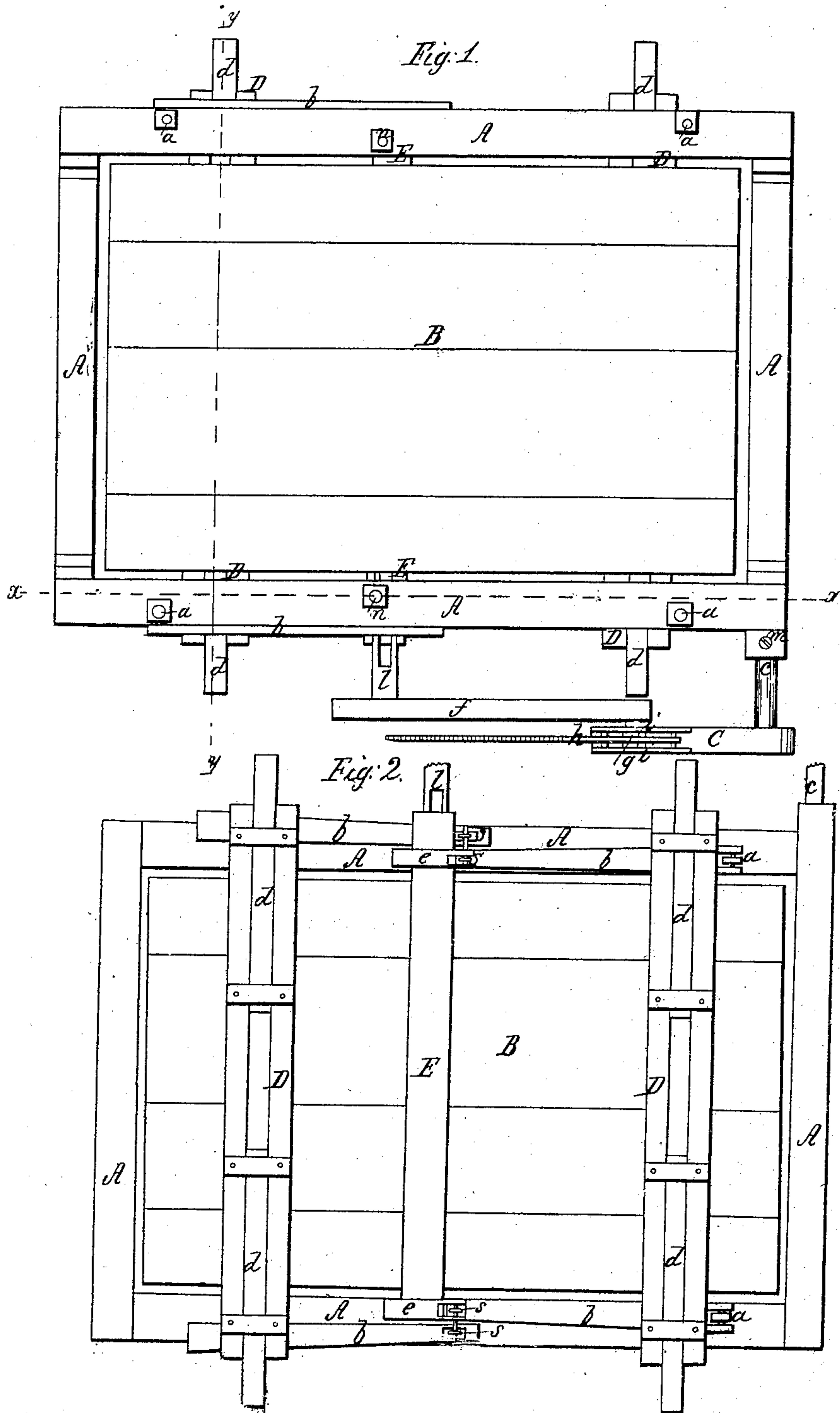


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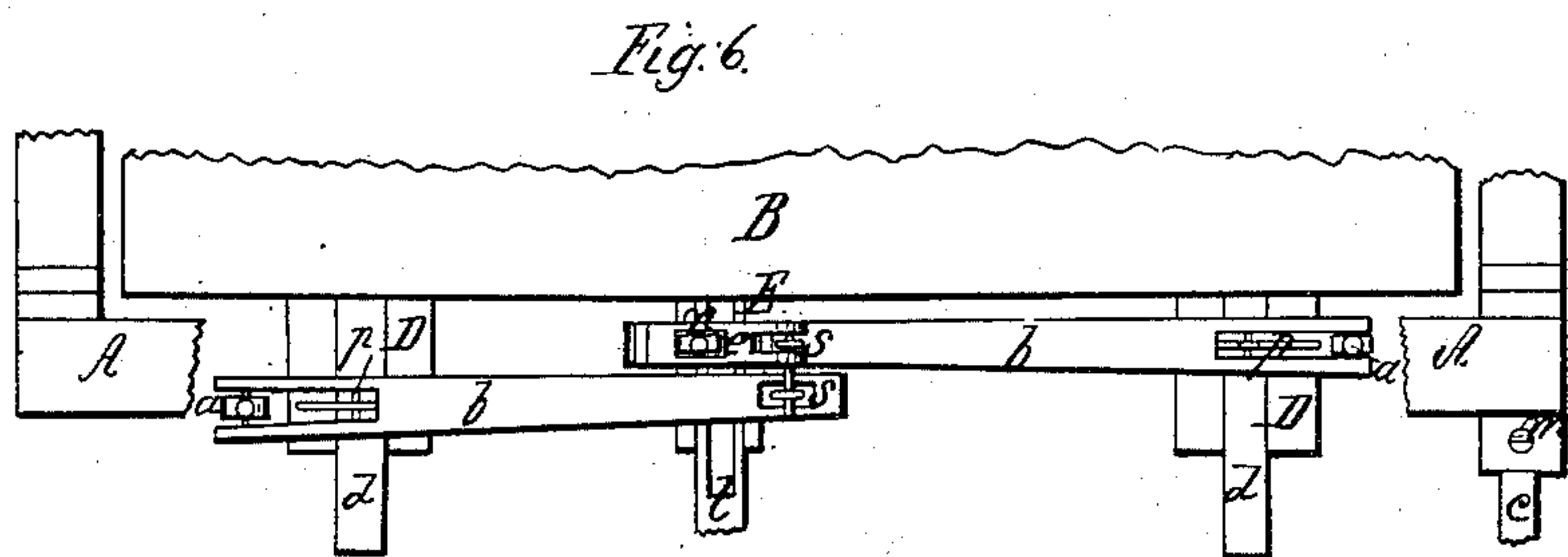
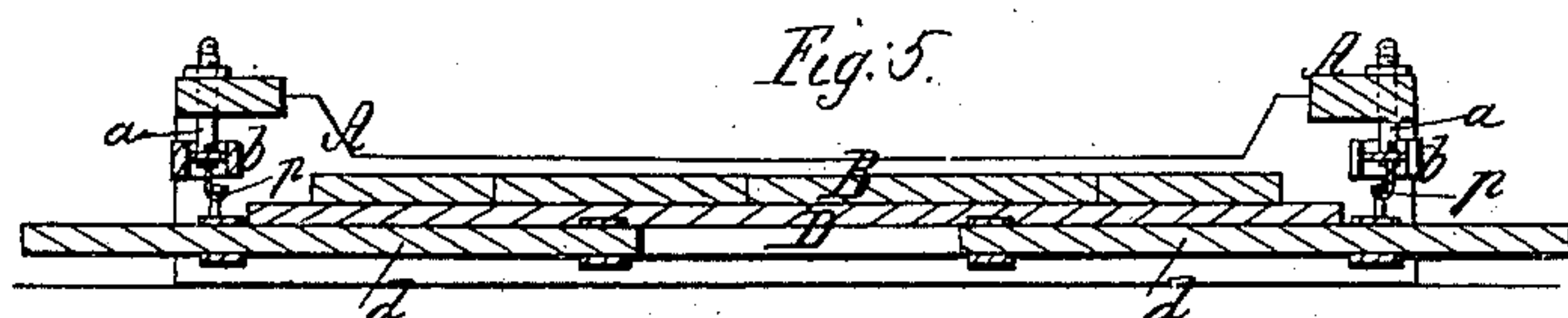
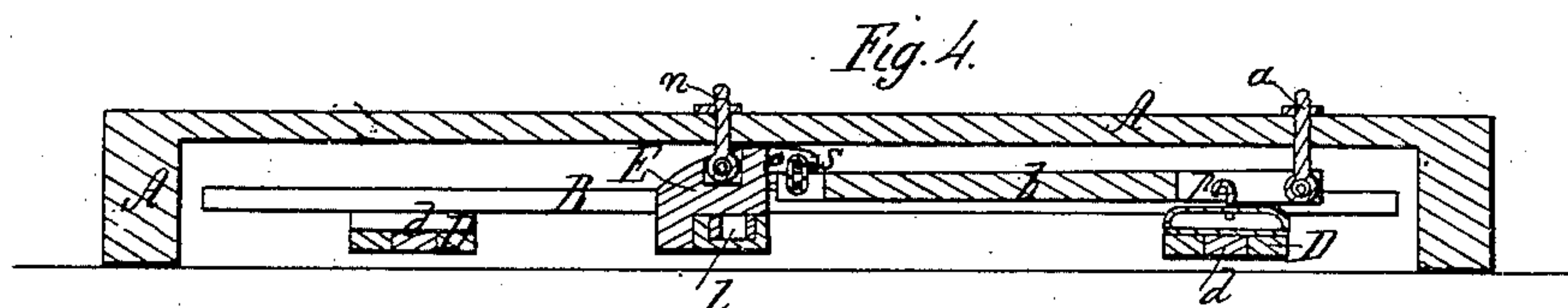
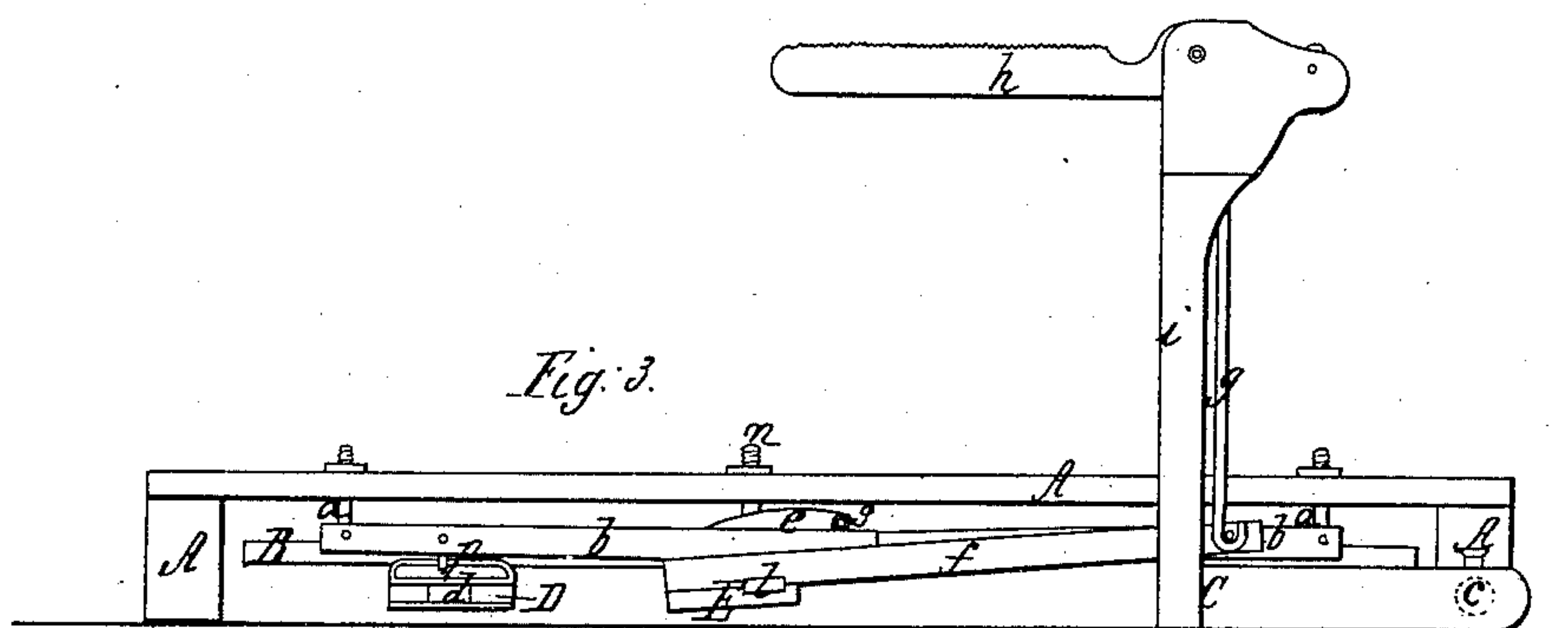
Patented Nov. 22, 1853.



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UNITED STATES PATENT OFFICE.

ELNATHAN SAMPSON, OF CORNISH, NEW HAMPSHIRE.

PLATFORM-SCALE.

Specification of Letters Patent No. 10,264, dated November 22, 1853.

To all whom it may concern:

Be it known that I, ELNATHAN SAMPSON, of Cornish, in the county of Sullivan and State of New Hampshire, have invented a new and Improved Portable Hay-Scale; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, Figure 1 being a plan of my improved portable scales; Fig. 2, a plan of the under side thereof; Fig. 3, a side elevation; Fig. 4, a vertical section in the line $x x$ of Fig. 1; Fig. 5, a vertical section in the line $y y$ of Fig. 1, and Fig. 6 a top view of the same, portions being broken away to show certain parts more distinctly.

Like letters designate corresponding parts in all the figures.

I first construct a low rectangular frame A, barely wide enough, or even too narrow, for an ordinary cart or sled to pass between its sides, in order to produce the utmost practicable compactness. Near the corners of said frame four hangers a, a, a, a , are attached thereto, and support respectively on pivots at their lower ends, four levers b, b, b, b , the vibratory ends of which are suspended, at s, s, s, s , from the ends of two short levers e, e , that are attached to a vibratory shaft E, passing crosswise under the middle of the frame, and supported by two hangers n, n , attached to the sides thereof. At suitable and corresponding distances from the fixed ends of the levers b, b, b, b , are suspended, by pivots, or staples p, p , &c., the ends of two beams D, D, which pass crosswise under the frame, and support the platform B. These beams are extensible at both ends by means of sliding bars d, d, d, d , which fit in grooves therein. The bars are sunk entirely into the beams, when not in use; but, whenever anything wider than the platform B, is to be weighed, the said bars on one side of the scales are to be drawn out, and a plank to be laid along from one to the other, on which one side of the sled, or cart, is to rest, while the other side thereof rests upon the platform B, or, if necessary, on the bars at the other side of the scales.

A stand C, for supporting the steelyard is attached to a bar c , which slides into the frame A, in the same manner as the bars d, d , &c., and is secured in any position by a binding screw m . Uprights i, i , (or a single upright,) ascend from the stand C, and support the steelyard h , from the short arm of which is suspended a rod, or chain g . The vibratory arm of a lever f , attached to a bar l , which slides in the shaft E, so as to make it extensible, is supported by said rod g , thereby completing the connection between the levers of the platform and the steelyard. The shaft E, is made extensible, and the stand C, adjustable at different distances from the frame A, in order to allow room for supporting a part of the article to be weighed by the bars d, d , on that side of the scales.

The use of the short levers e, e , and extensible shaft E, is to enable the connection to be readily made between the steelyard and platform, either when extended or not, and to insure compactness by avoiding the employment of long levers. By this means only a very shallow frame is required, which, by being formed into a box, will completely inclose all the levers, &c., of the scales. Therefore it is not necessary to make any excavation in the ground, as other scales require; and they may be taken up and conveyed to any place, and then will at once be ready for weighing.

Having thus fully described my improved expansible platform scales, what I claim therein as new and desire to secure by Letters Patent, is—

The combination of the sliding bars d, d, d, d , and l , with the platform, the actuating levers, and the scale-beam, in such a manner as to enable the platform to be laterally expanded or contracted, substantially as herein set forth.

The above specification of my improved portable hay scale signed and witnessed this 25th day of Feb., 1853.

ELNATHAN SAMPSON.

Witnesses:

Z. C. ROBBINS,
GEO. A. C. SMITH.