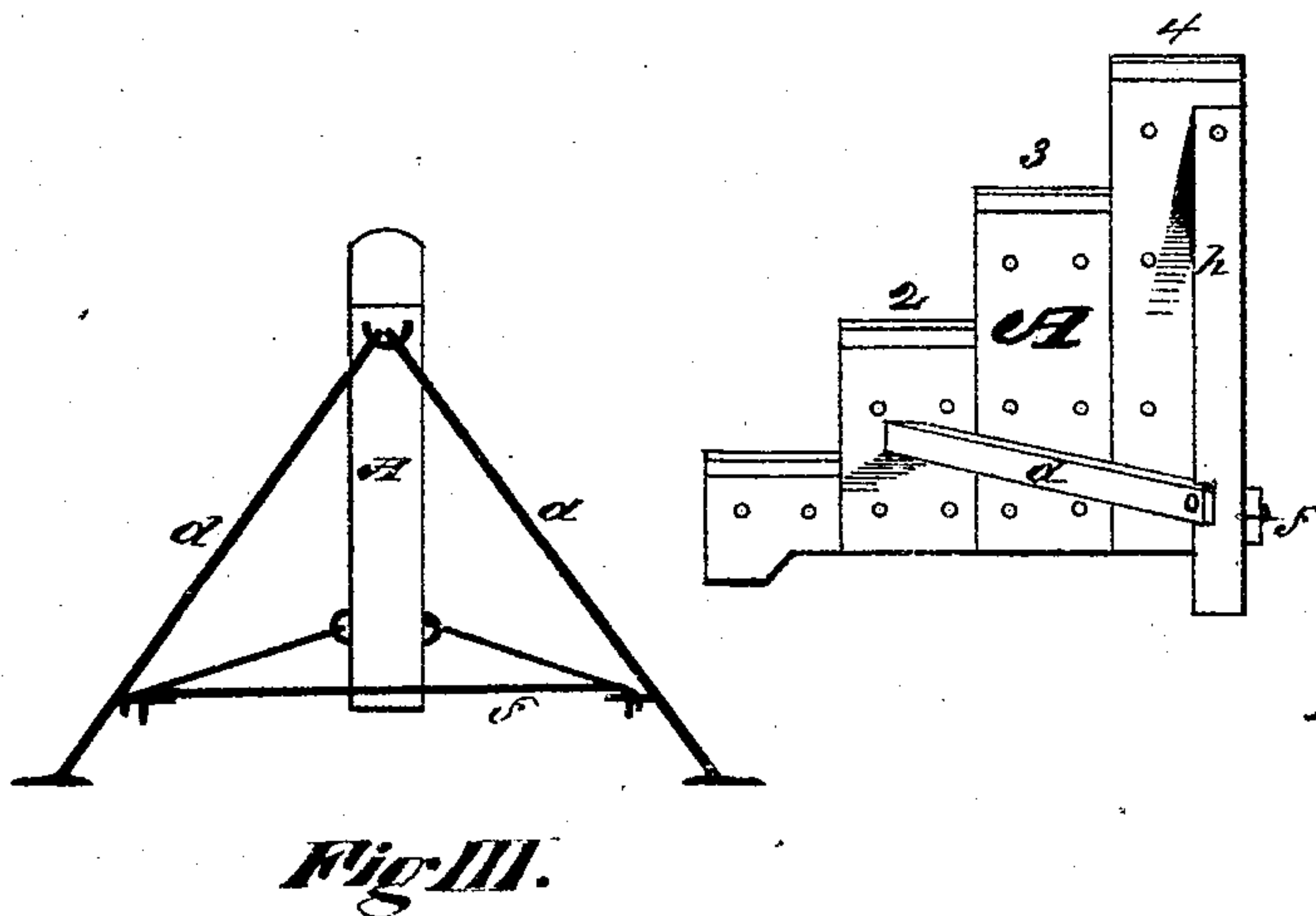
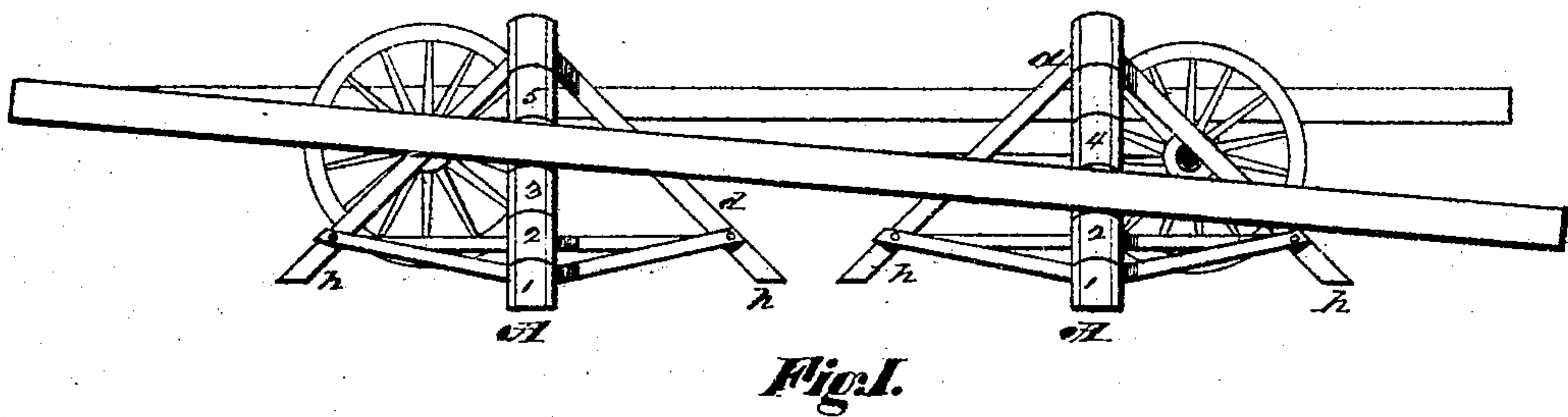


J. D. SMITH.

Devices for Loading Lumber, Iron Bars, &c.

No. 147,185.

Patented Feb. 3, 1874.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES D. SMITH, OF DALTON, MASSACHUSETTS.

IMPROVEMENT IN DEVICES FOR LOADING LUMBER, IRON BARS, &c.

Specification forming part of Letters Patent No. **147,185**, dated February 3, 1874; application filed May 26, 1873.

To all whom it may concern:

Be it known that I, JAMES D. SMITH, of Dalton, Berkshire county, State of Massachusetts, have invented an improved device for enabling timber, railroad-iron, and other long, heavy material to be easily loaded upon wagons or cars, of which the following is a specification:

My invention consists of a pair of portable inclines, each of which is broken into a series of steps, each step being long enough to support the beam of timber or other article to be lifted, and narrow enough to afford a good fulcrum for the beam to be swung upon. Each series of steps is held upright by legs and braces, so as to remain rigid under the weight bearing upon it. Each series of steps is, in effect, one of fulcrums, leading to a point of greater elevation than the top of the wagon-wheel, or of the floor of the car, and in use they are placed at such distance apart as to enable the beam to be swung from a fulcrum upon one to a higher one upon the other, and so have its ends alternately elevated until the top of the steps is reached, when the beam is dropped or placed in the position desired.

In the drawings, Figure I shows my device in use in the loading of timber upon a wagon. Fig. II is a side view of one of the series of fulcrums. Fig. III shows a variation.

A is the body, formed into the steps 1 2 3 4, and supported by the braces *d d f* and legs *h h*.

In practice, I have constructed each series of steps, as shown, of layers of plank, nailed or otherwise secured together, with wooden

legs and braces; but they may be made of metal, so that the steps will be skeleton, and the braces and legs also of metal, hinged so as to fold into small space when it is desired to transport the device.

In loading long, heavy beams upon wagons or cars, the entire weight of the beam must be lifted by those engaged in loading—usually one man at each end—or, if a very heavy beam, it must be lifted upon its extreme end as a fulcrum, and to a height where the muscles of a man cannot be employed to advantage, and where the strain upon the whole body is very great; but with my device the weight of the timber at one side of the fulcrum is utilized, so that, with one man lifting at one end, the weight of a man upon the other is amply sufficient to raise it the height of the next step, which is to become in turn the fulcrum, so that it can be, with little expenditure of strength, raised quickly from step to step until the top is reached.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A pair of portable elevators, A A, each being held upright and supported by braces *d d f h h*, and having two or more fulcrums, 1 2 3, arranged in series of steps, substantially in the manner and for the purpose as set forth.

JAMES D. SMITH.

Witnesses:

B. F. HYDE,
HENRY MORRIS.