I. K. BENNETT.

Ox-Yoke.

No 17,071. Patented Apr. 21, 1857.

Fig: 1.

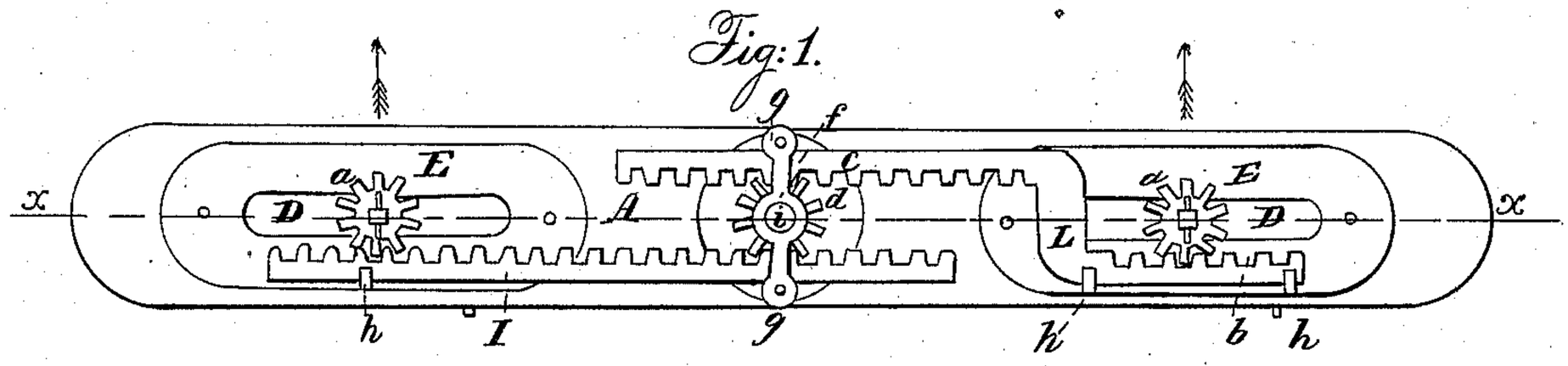


Fig: 2.

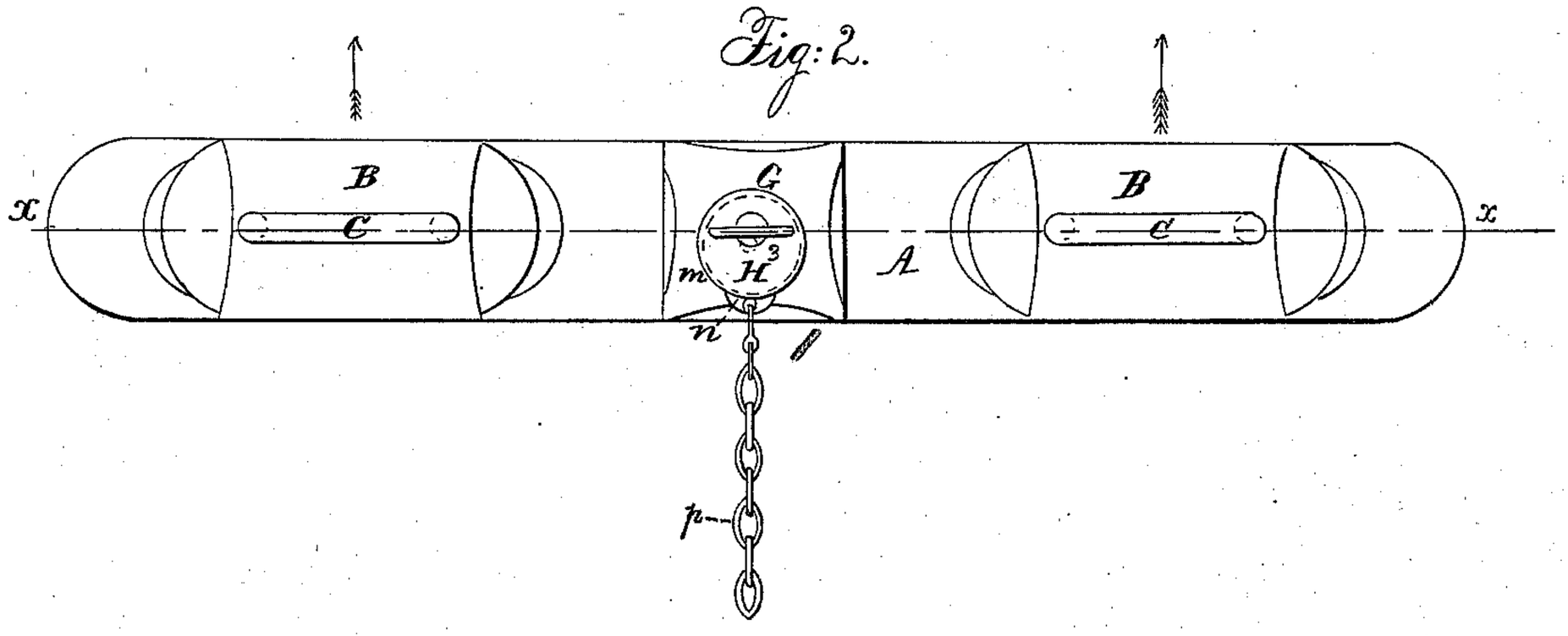
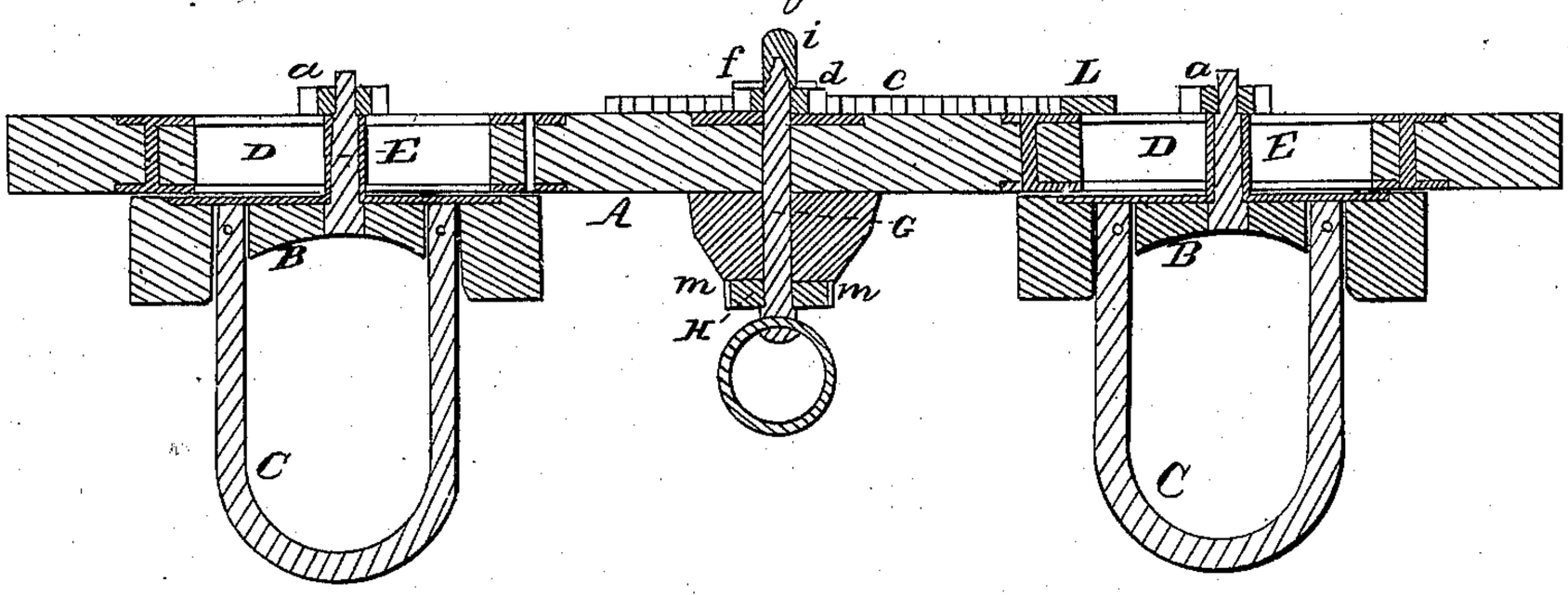


Fig: 3.



UNITED STATES PATENT OFFICE.

ISAAC K. BENNETT, OF NARROWS, PENNSYLVANIA.

OX-YOKE.

Specification of Letters Patent No. 17,071, dated April 21, 1857.

To all whom it may concern:

Be it known that I, ISAAC K. BENNETT, of Narrows, in the county of Pike and State of Pennsylvania, have invented a new and Improved Ox-Yoke; 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 top view of the yoke; Fig. 2, a view of the under side thereof; Fig. 3, a longitudinal vertical section in the plane *x*, *x*, Figs. 1 and 2.

Like letters designate corresponding parts in all the figures.

The beam A, is provided with longitudinal slots, D, D, in which the pivots, E, E, of the bow blocks, B, B, are allowed to slide closely but freely. Upon the upper projecting ends of these pivots, which are firmly fixed in the bow blocks, are respectively placed pinions, *a*, *a*, so attached thereto as to turn with them. On the upper, projecting end of the staple G, another pinion, *d*, is situated, and turns thereon for a pivot. The yoke should always have the same side forward, as indicated by the arrows in the drawings; and at the rear side of the center pinion, *d*, and of one of the end pinions, *a*, *a*, a rack, I, is situated, and extends some distance beyond both pinions, into which it gears. A double rack, L, of the form represented in Fig. 1, has one end, *b*, gearing into the rear side of the remaining pinion, *a*, and the other end, *c*, gearing into the center pinion, *d*, in front, substantially as represented in Fig. 1. The racks are kept in place by suitable clips, *h*, *h*, *h*, at the ends, and by a bar, *l*, at the middle, held down upon studs, *g*, *g*, by the nut, *i*, which confines the staple, G, in the yoke. The object of this arrangement of the rack and pinions is, first, to allow the oxen to separate or approach as occasion may require, and, at the same time, keep them at equal distances from the center of draft, in the manner well known; and, second, to provide against one ox gaining the advantage of the other by crowding. This is effected in the following manner. When one ox crowds against his mate, he directs his body more or less toward the other. With the swivel bow blocks, as above described, this movement of the crowding ox will turn his own bow block in such a manner as to cause the pinion, *a*, on its pivot, to travel on the rack geared therein, toward the center of the yoke, and thereby diminish the distance from the center; and consequently give his mate an advantage in the leverage proportional to the extent to which he turns.

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

The pinions, *a*, *a*, on the pivots of the bow blocks, in combination with the racks into which they gear, operating substantially in the manner and for the purpose specified.

In witness that the above is a true specification of my improved ox yoke, I hereunto affix my hand this second day of February 1857.

ISAAC K. BENNETT.

Witnesses:
R. R. WALKER,
JOHN K. RICE.