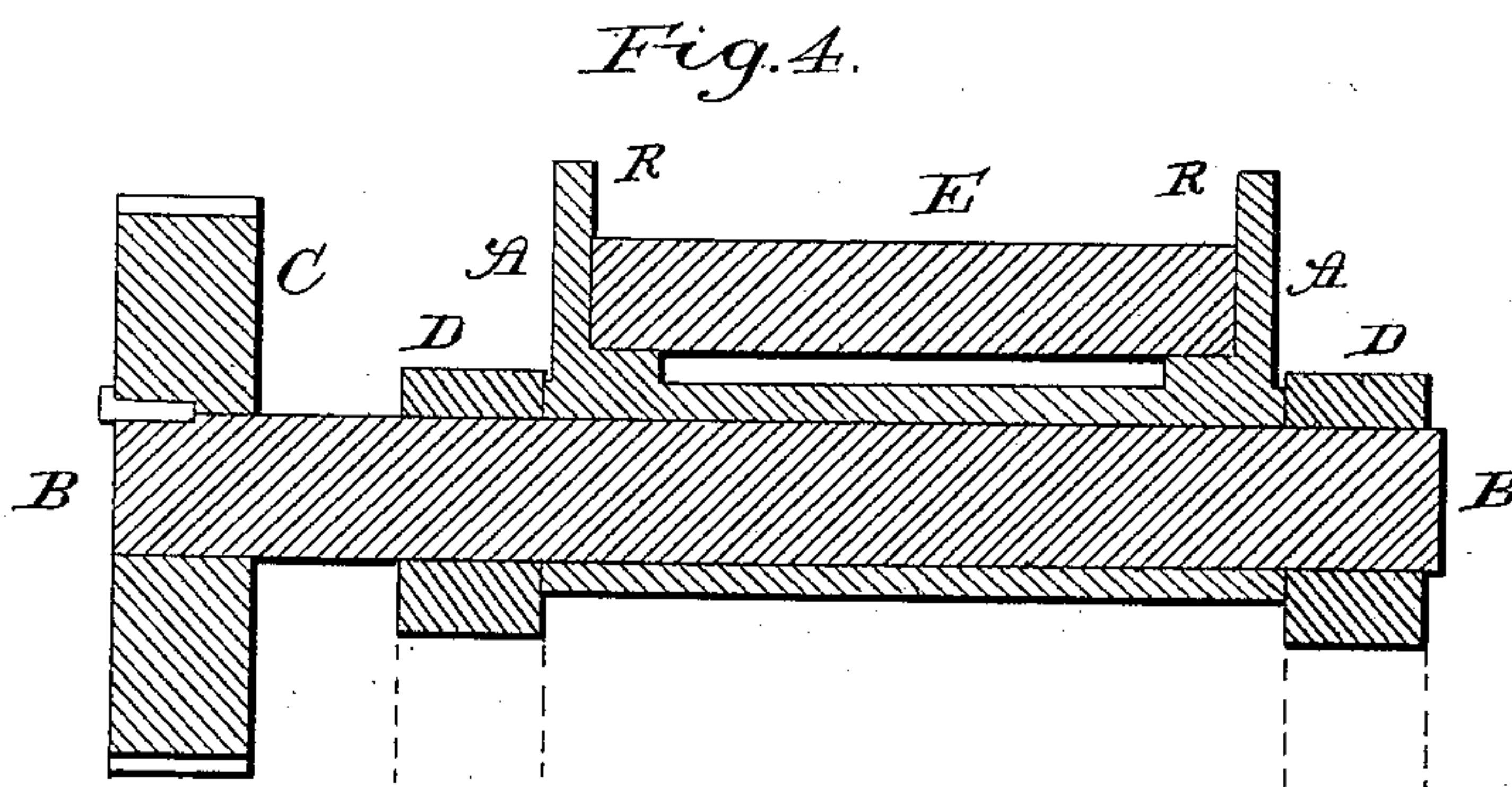
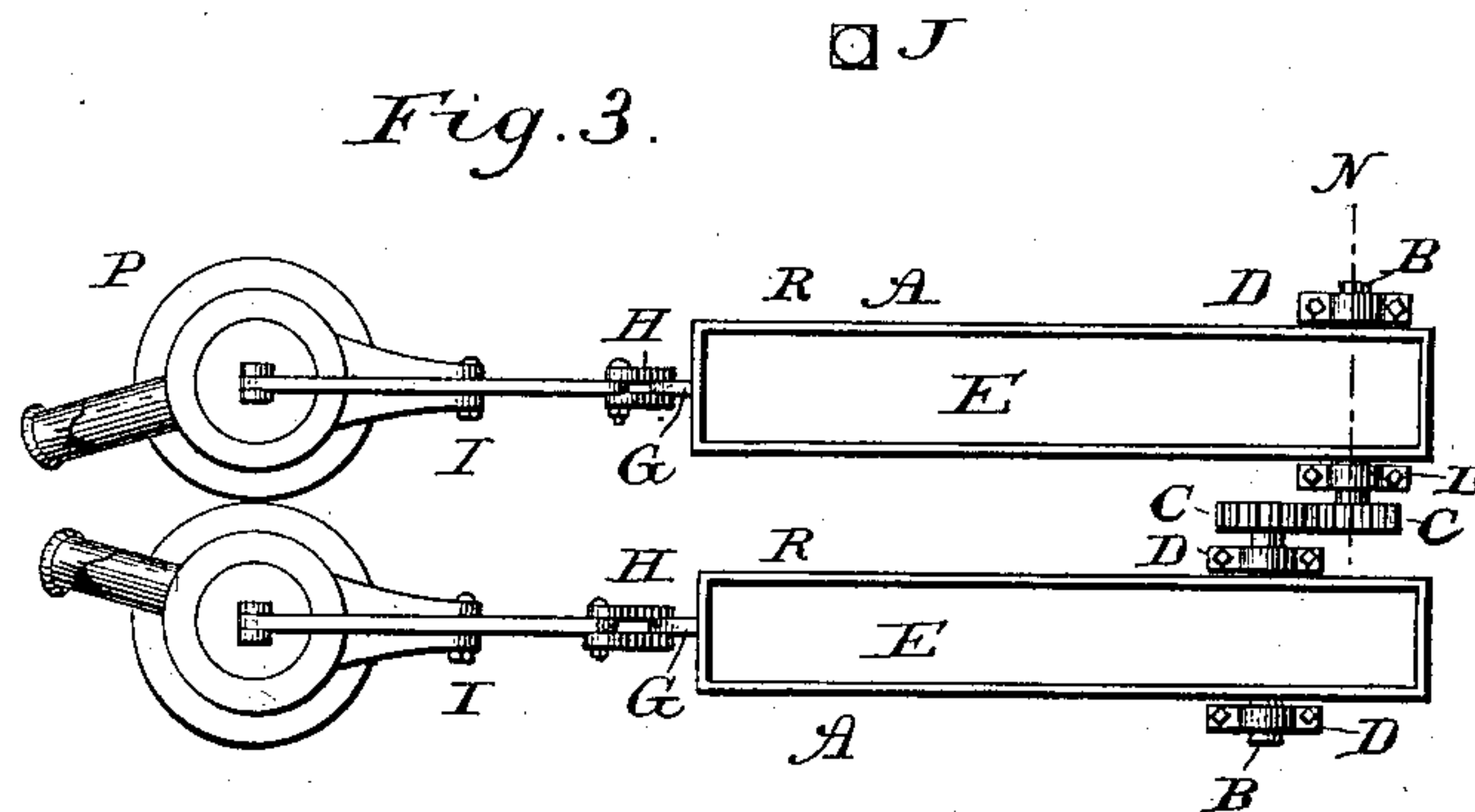
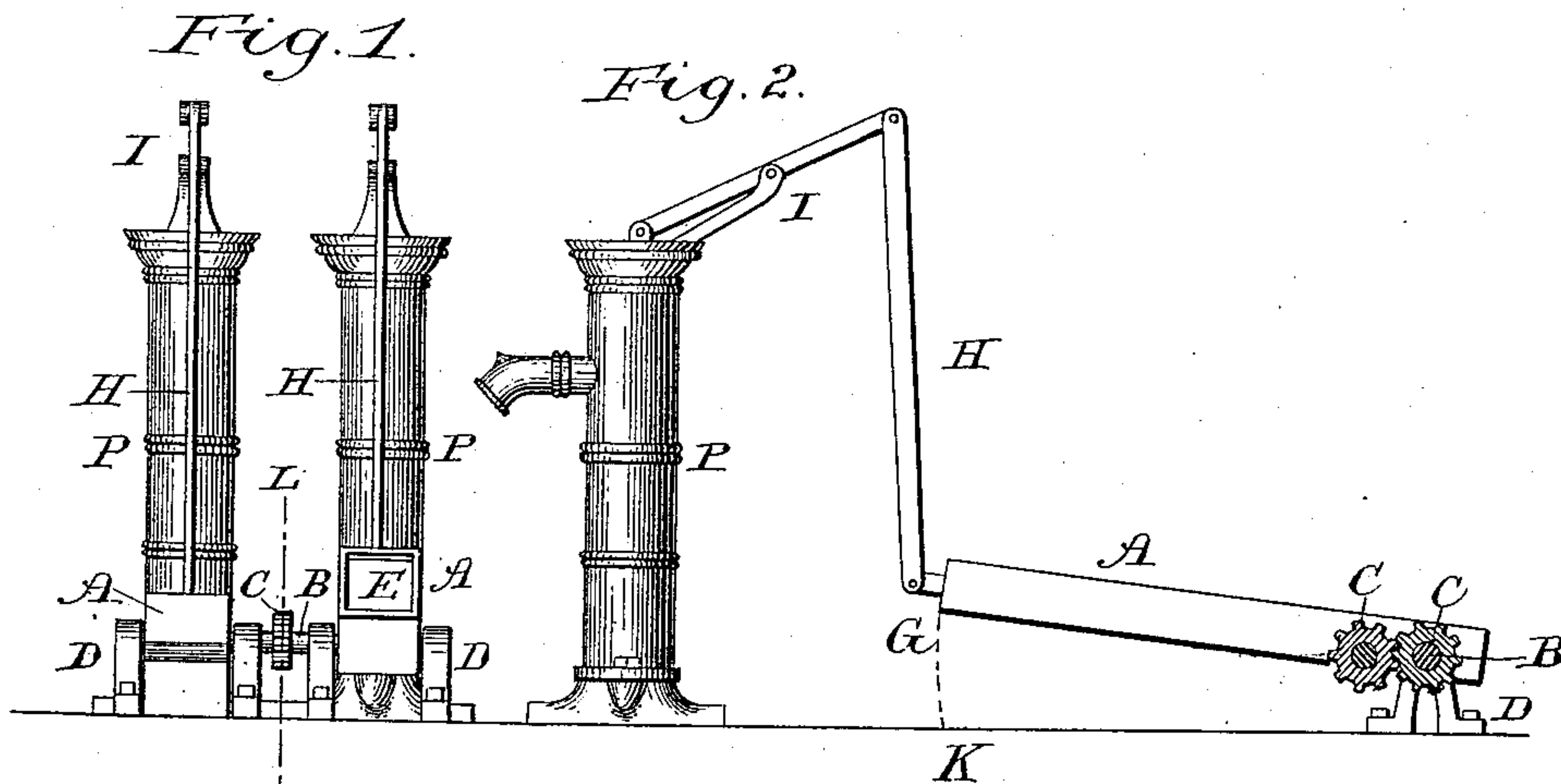


(No Model.)

A. JEFFERY.  
GEARING FOR OPERATING PUMPS.

No. 335,201.

Patented Feb. 2, 1886.



Witnesses:

Walter G. Elliot  
J. D. Carter

Inventor.

Alfred Jeffery

# UNITED STATES PATENT OFFICE.

ALFRED JEFFERY, OF BROOKLYN, NEW YORK.

## GEARING FOR OPERATING PUMPS.

SPECIFICATION forming part of Letters Patent No. 335,201, dated February 2, 1886.

Application filed October 1, 1885. Serial No. 178,734. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED JEFFERY, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Gearing for Operating Pumps, of which the following is a specification.

My invention relates to improvements in the method of working pumps by means of treadles, and the objects of my improvements are, first, to employ the entire weight of the person or persons working the pumps, instead of the muscles of the arms only; and, second, to insure quick action by having the operator use each foot alternately by throwing his weight first on one treadle and then on the other. I secure these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation taken from the rear of the machine and the pumps operated; Fig. 2, a side elevation of all parts to the right of the dotted line L in Fig. 1; Fig. 3, a top view, and Fig. 4, a sectional view, of one treadle and gearing as taken through the dotted line N of Fig. 3.

Similar letters refer to similar parts throughout the several views.

The two treadles A A are keyed or otherwise secured to two shafts, B B, which are supported in bearings D D D D. On the inner ends of shafts B B are two cog-wheels or segments of cog-wheels, C C, of equal size, which gear into each other when the treadles are secured in their proper positions. The shafts B B are the fulcrums on which the treadles A A oscillate, and to the free ends of the treadles are wrist-pins G G, connecting with rods H

H and levers I I, to operate the pistons of pumps P P. Thus the movement of one treadle downward raises the piston of the pump with which it is connected, and at the same time, through the medium of shaft B B and cog-wheels C C, reverses the motion of the other treadle and pump-piston.

The length of stroke given to the pump-pistons may be regulated by placing under the ends of the treadles at the point K a board or block of any required thickness and provided with rubber or leather cushions, to prevent excessive concussion and strain of the several parts.

For lightness and economy, the inner or central portion of the treadle is filled in with wood E, (see Figs. 3 and 4,) but of such thickness as to leave a rim or flange, R R, at the sides and ends, to prevent the feet of the operator from slipping. At J is a post or standard to be grasped by the operator to steady his movements, or a railing may be provided for the same purpose.

The invention may be applied to single or double pumps, whether situated above or below the well floor or covering, and whether lift or force.

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

The combination of two oscillating treadles connected through the medium of the shafts B B and gear-wheels C C, substantially as set forth.

ALFRED JEFFERY.

Witnesses:

WALTER G. ELLIOT,  
JOS. D. BAKER.