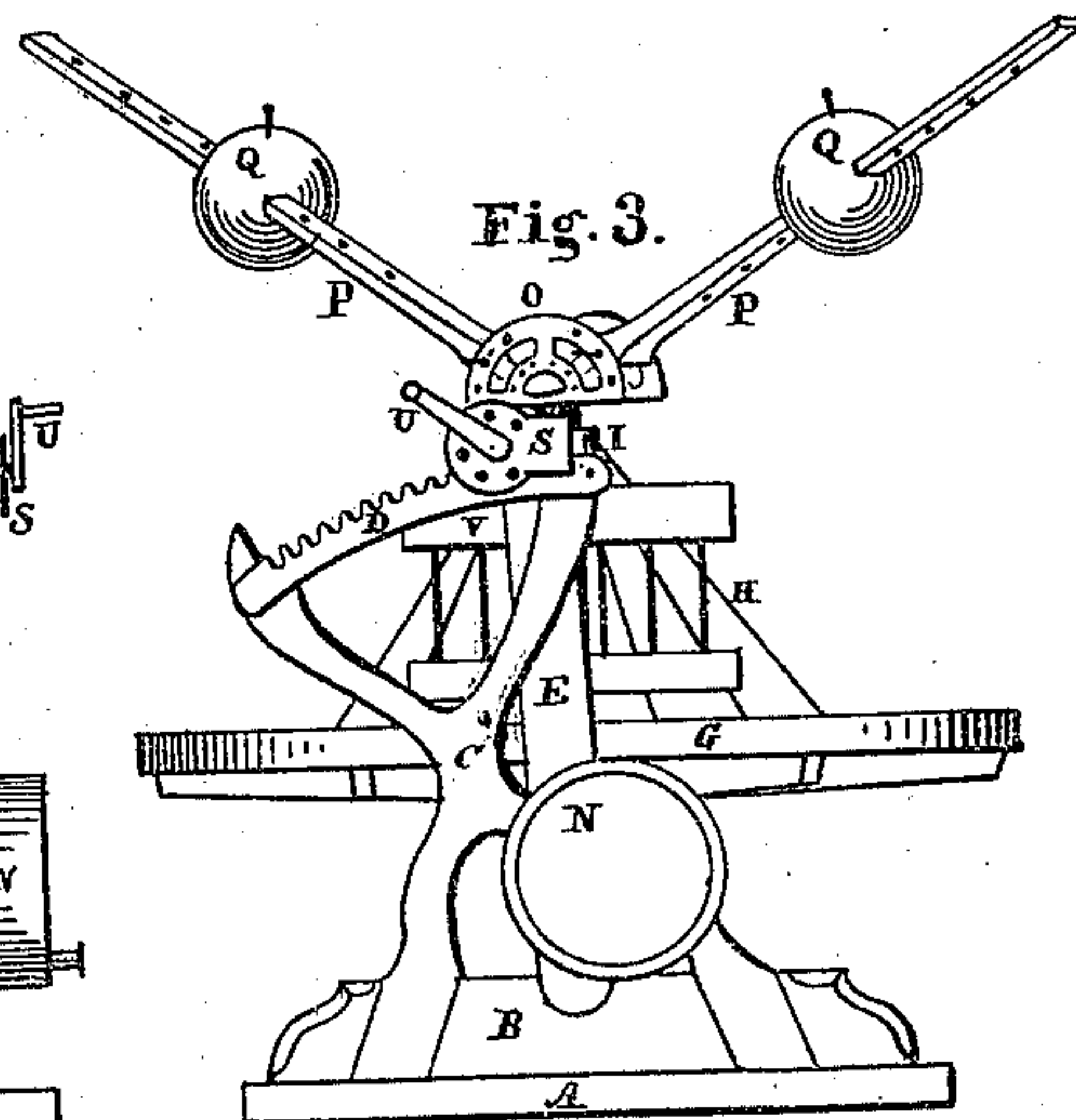
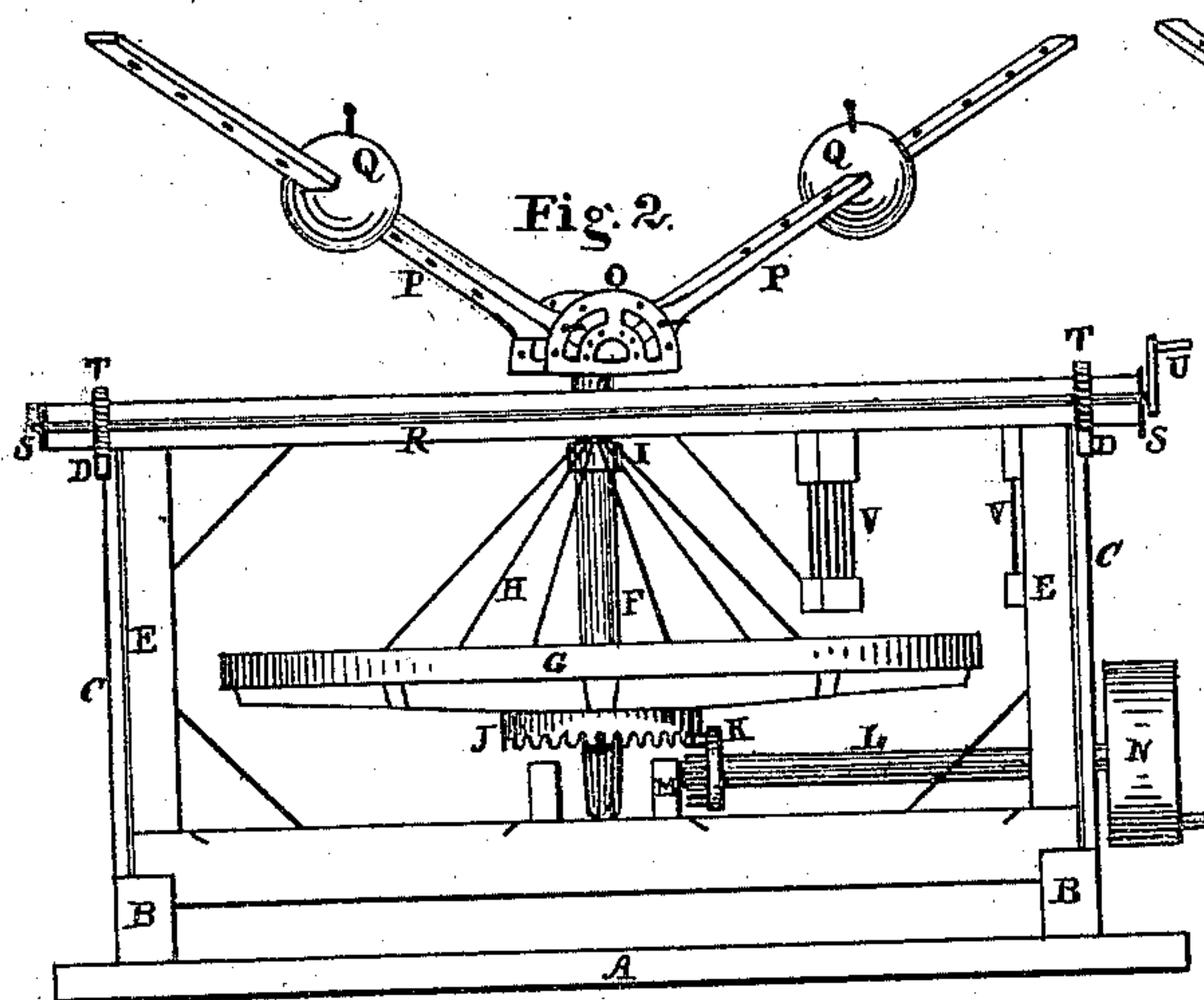
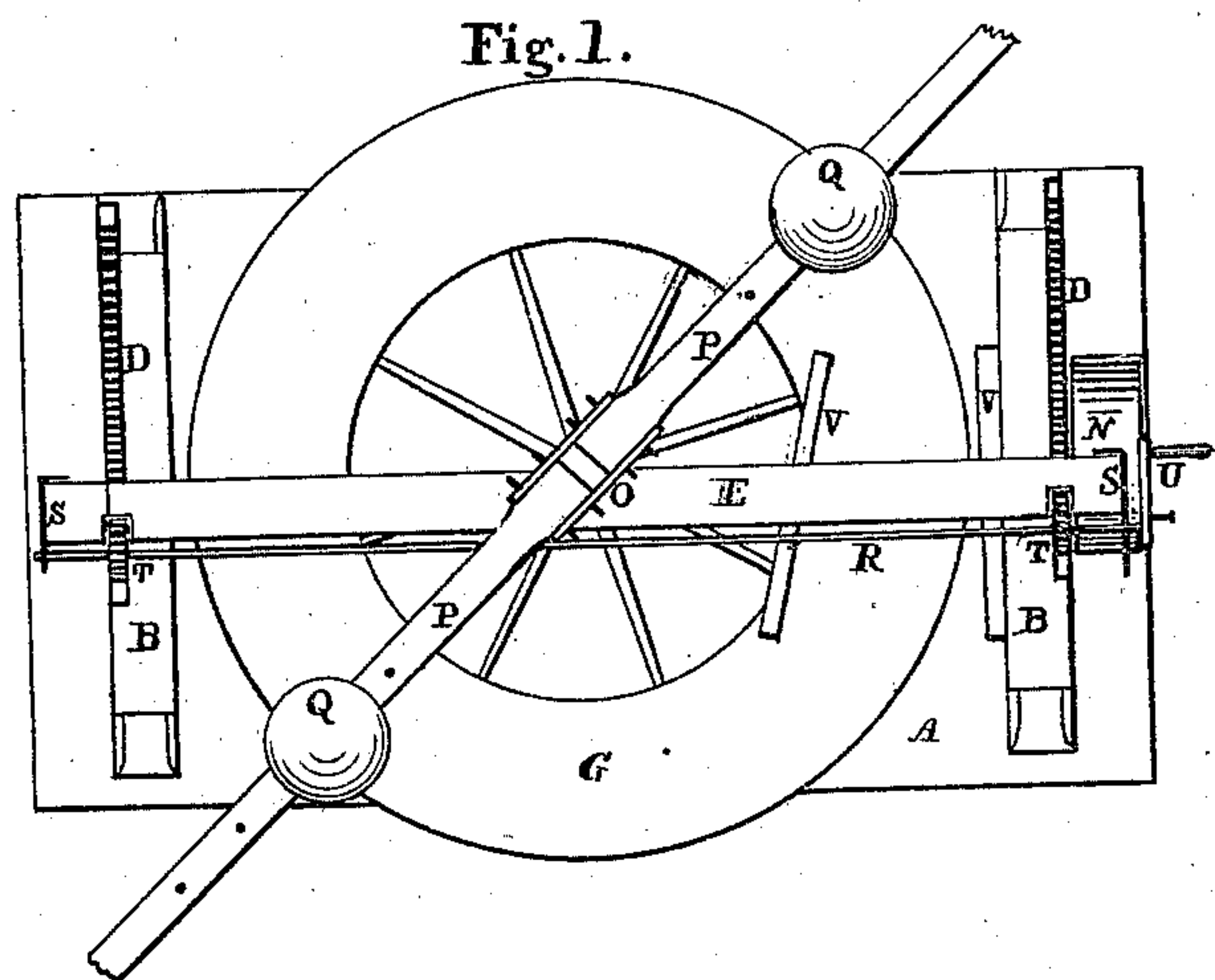


H. F. CARPENTER.

Improvement in Animal-Powers.

No. 131,498.

Patented Sep. 24, 1872.



WITNESSES

G. C. F. Wayne  
E. J. Baldwin

INVENTOR.

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By Geo. W. Fitts, Atty.

# UNITED STATES PATENT OFFICE

HENRY F. CARPENTER, OF POLO, ILLINOIS.

## IMPROVEMENT IN ANIMAL-POWERS.

Specification forming part of Letters Patent No. 131,498, dated September 24, 1872.

*To all whom it may concern:*

Be it known that I, HENRY F. CARPENTER, of Polo, in Ogle county, State of Illinois, have invented an Improved Dog-Power, of which the following is a specification:

This invention relates to the construction of a power to be propelled by a dog or other similar-sized animal to be employed for churning butter, pumping water, and other suitable purposes, and is described as follows:

Referring to the drawing, Figure 1 is a top or plan view. Fig. 2 is a side elevation, and Fig. 3 is an end elevation, of my above-mentioned invention.

A is a base-board on which stands the superstructure, across which and near the end are fastened cross-pieces B B. Secured to the cross-pieces B B are upright supports C C, provided at the upper end with an arched ratchet-bar, D, the purpose of which will be hereinafter shown. E is a frame, which stands between the uprights C C, and which has its bearings at the lower corners in the central part of the cross-pieces B B. In this frame E is arranged the running parts of the machine. In the middle of said frame is an upright shaft, F, having a stop in the lower rail of the frame E and its upper bearing in the upper rail. Secured to the shaft E is a tread-wheel, G, upon the broad rim of which a dog is to travel. The tread-wheel is steadied by brace-rods H H, reaching from the inner circle of the rim to a collar, I, on the shaft. On the under side of the wheel and forming a part of the hub thereof is a cog-wheel, J, which gears with a pinion, K, on a horizontal shaft, L, said shaft having one bearing in a short post, M, in the frame E, and the other in the end post of the said frame, the end of the shaft carrying a driving-pulley, N, from which power may be transmitted for useful purposes. On the top of the shaft F is attached a seg-

mental rack, O, in which are placed two arms, P P, on which are balls Q Q, said balls being adjustable on the arms by means of pins. The arms are also adjustable in the rack O, by which they may be placed at different angles of elevation. Along the side of the top rail of the frame E is a shaft, R, having its bearings in plates S S at the ends of said top rail. On said shaft R are two small pinions, T T, which gear with and play in the curved rack D, the end of said shaft R having a crank, U, for turning the same, and which may be secured in different positions by a pin passed through the crank and the plate S. The object of this arrangement is to tilt the frame E and give the tread-wheel a slant which greatly facilitates the movement of the dog. The object of the arms P P and balls Q Q is to give momentum to the motion of the tread-wheel, and also to aid the dog, they acting as a balance-wheel. The momentum may be increased more or less by changing the distance of the balls from the center of motion. Guide-frames V V are attached to the frame E for keeping the dog in proper place and direction on the tread-wheel. A second post, M<sup>2</sup>, is placed in the frame E, so that another shaft like that of L may be put in the frame, if desired, for doubling the capacity of the machine.

I claim—

The tread-wheel G, upright shaft F, gear J, pinion K, shaft L, pulley N, rack O, arms P P, balls Q Q, and the frame E, shaft R, pinions T T, crank U, curved rack D, supports C C, cross-pieces B B, guide-frames V V, all constructed, combined, and arranged to operate substantially as and for the purpose set forth.

HENRY F. CARPENTER.

Witnesses:

C. COOPER,  
M. BEACH.