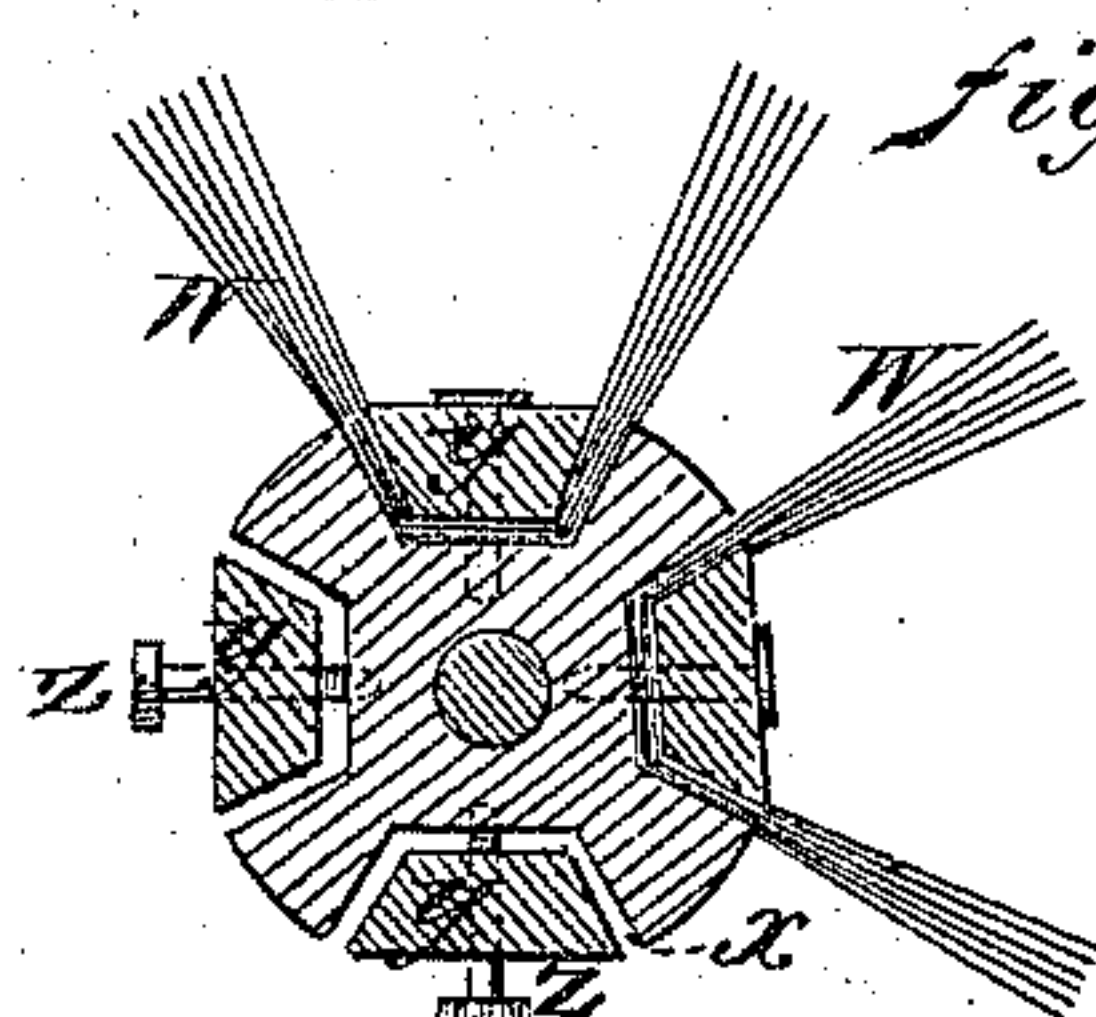
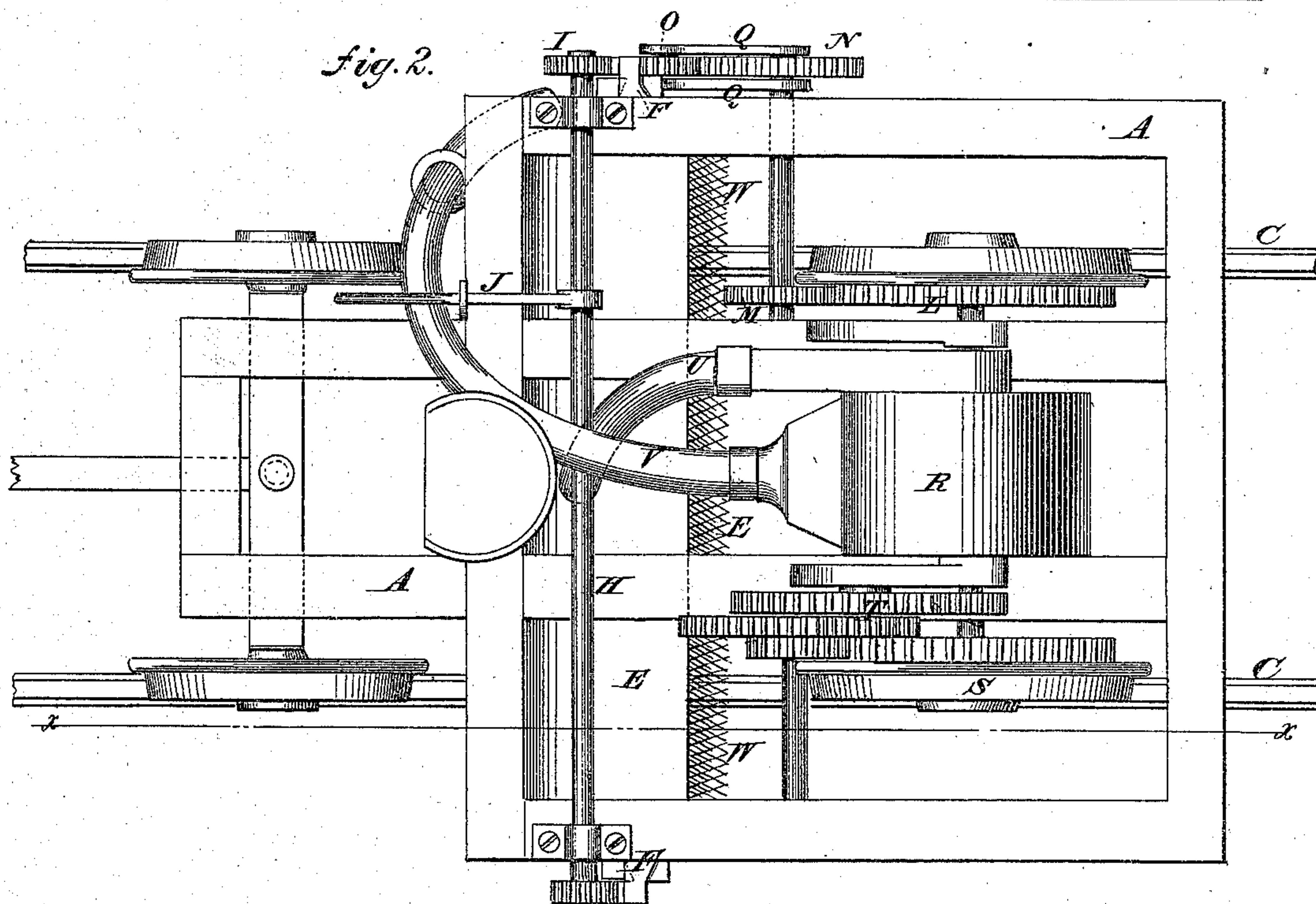
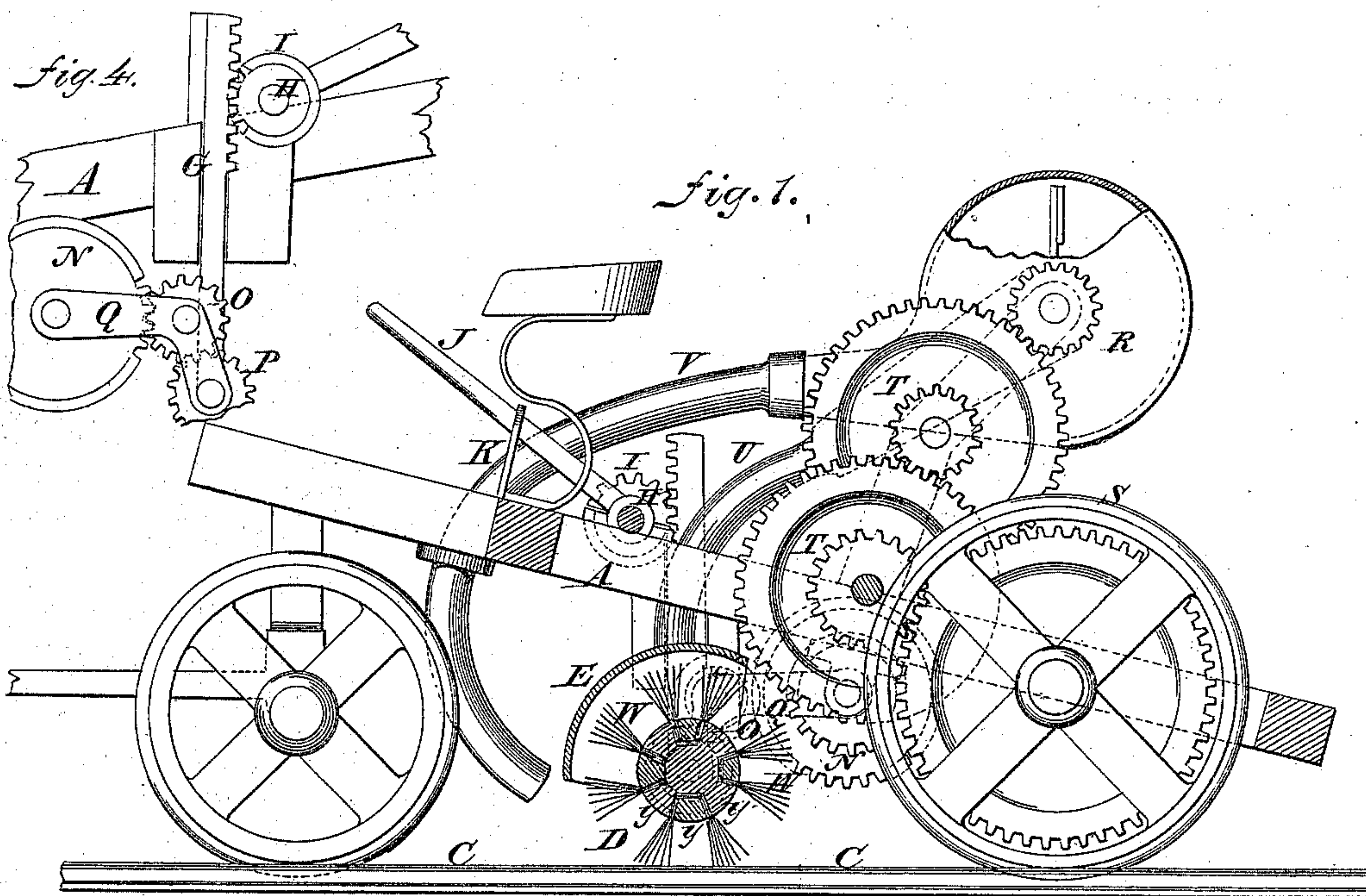


L. J. O'CONNOR.
Street-Sweeping Machines.

No. 143,838.

Patented Oct. 21, 1873.



Witnesses.

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UNITED STATES PATENT OFFICE

LESLIE J. O'CONNOR, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN STREET-SWEEPING MACHINES.

Specification forming part of Letters Patent No. 143,838, dated October 21, 1873; application filed August 23, 1873.

To all whom it may concern:

Be it known that I, LESLIE J. O'CONNOR, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Street-Sweeping Machine, of which the following is a specification:

My invention is an improvement in street-sweeping machines of the class in which a fan is employed to draw the dust away from the rotary brush and into a suitable receptacle. The improvement relates to the arrangement of a train of driving-gears for communicating motion from one of the truck-wheels to the brush, in combination with vertically-adjustable supports for said brush, whereby the raising and lowering of the same does not in any way obstruct or interfere with the train. The invention also relates to the arrangement of a curved sheet-metal hood directly over the front upper portion of the rotary brush, and having a pipe leading from the center thereof to carry off the dust, as hereinafter described.

Figure 1 is a longitudinal sectional elevation of my improved street-sweeping machine, taken on the line *x x* of Fig. 2. Fig. 2 is a plan view. Fig. 3 is a section through the brush; and Fig. 4 is a detail inside elevation, showing the arrangement of the driving-gears and the adjustable supports for the brush.

Similar letters of reference indicate corresponding parts.

A represents the truck-frame, on which the machine is mounted, said frame being itself mounted on flanged wheels, which may either run on the track C of a street-railroad or on the pavement, the flanges being broad and strong for the latter purpose. D represents the revolving broom, which, together with its case E, is suspended under the truck-frame by the vertically-adjustable bars F, on which it is mounted. Said bars are fitted in supports G on the side of the frame, so as to slide up and down firmly, while at the same time supporting the broom properly, and they are toothed and gear with the hoisting-shaft H by pinions I; and the shaft is provided with a hand-lever, J, for turning it to raise and lower the broom. A suitable fastening device, K, is employed to hold the lever so that it holds the broom at the right height. The broom is geared with the truck-wheel L by a multiplying-train, M N O P, the wheel P being on the broom-shaft, and the wheel O being in bars Q, which are pivoted to the axis of wheel N at one end, and

connect with the broom-shaft at the other end, so as to swing up and down with the broom, and they are curved, as seen in Fig. 4, so as to cause the wheel O to gear properly with the wheels N and P while swinging up and down with the broom. R represents the fan, which is mounted on the top of the truck, and geared with the truck-wheel S by a multiplying-train, T, of suitable extent, to impart the requisite speed. U is the suction-pipe leading from the hood of the broom to the fan, and V is the pipe leading from the fan to the receptacle for the dust, snow, or other matter removed from the street.

To secure the twigs W to the broom-roller or cylinder, the latter is provided with deep grooves X, and the twigs are clamped into the grooves at their middle by followers Y, which are detachably secured by screws Z, all so that the twigs may be readily taken out and others put in.

The machine is designed for removing snow from street-railways as well as dust, and the broom is extended each side beyond the truck-wheels as much as it is desired to remove the snow from each side of the track.

The broom-shaft is necessarily geared at the end with the truck-wheel which drives it; consequently the train of wheels by which it is geared is arranged on the outside of the frame, and the right-hand side is chosen for this connection, so that the left-hand wheel can be used for driving the fan; and this train is arranged inside of the frame, to allow of running the left-hand side of the machine close to the curb-stone when sweeping pavements.

A canvas apron will be suspended from the front of the curb E before the broom to confine the dust.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The curved hood E, arranged over and covering the front upper portion of the rotary brush or broom, and having a pipe, U, connected to it at the center, and leading upward to the fan, as shown and described.

2. The arrangement of the driving-wheels N O P and bars Q with the sweeper-shaft and the adjustable supports F, substantially as specified.

LESLIE J. O'CONNOR.

Witnesses:

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