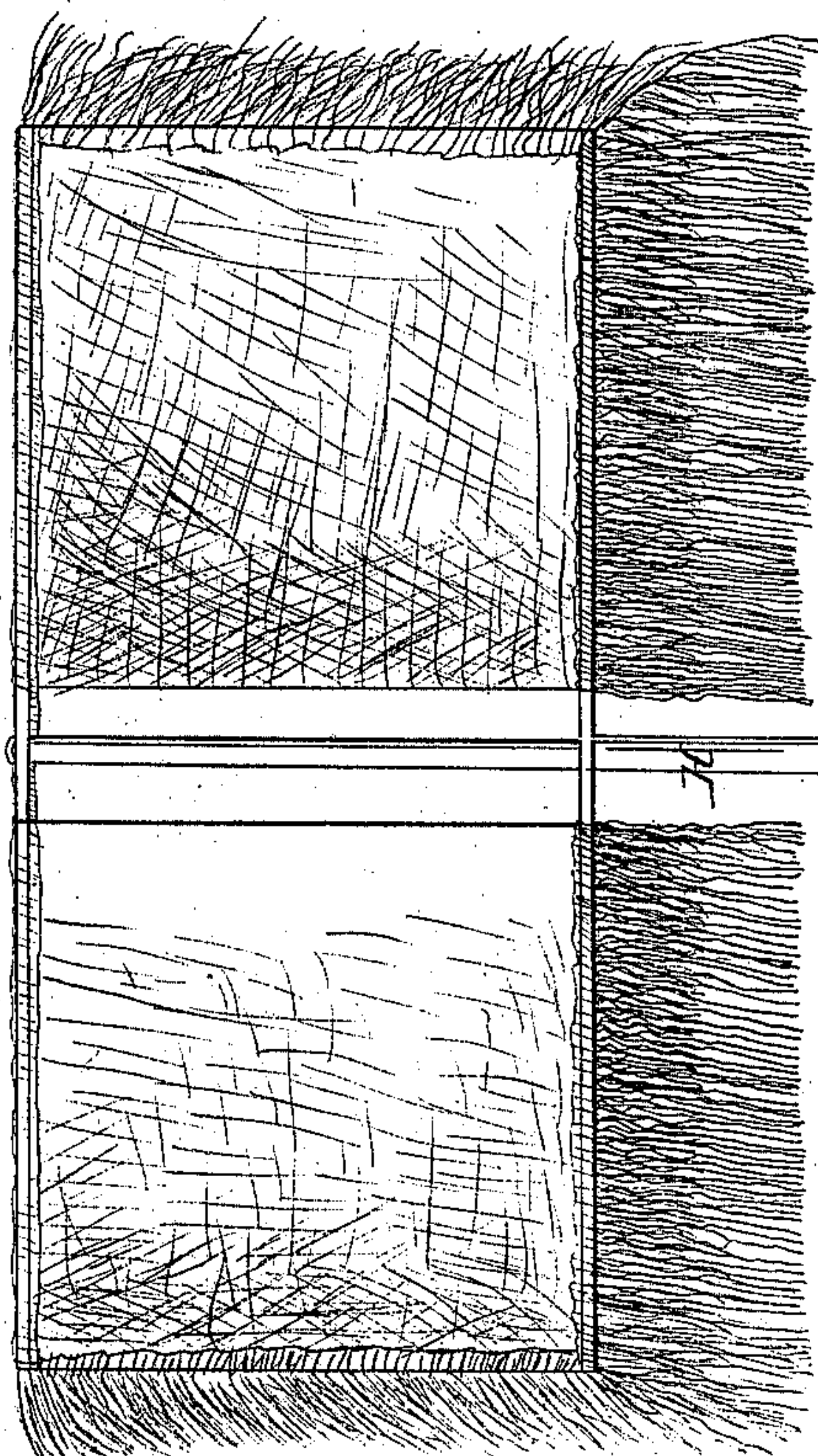


*J. H. Reynerson,  
Automatic Fan,*

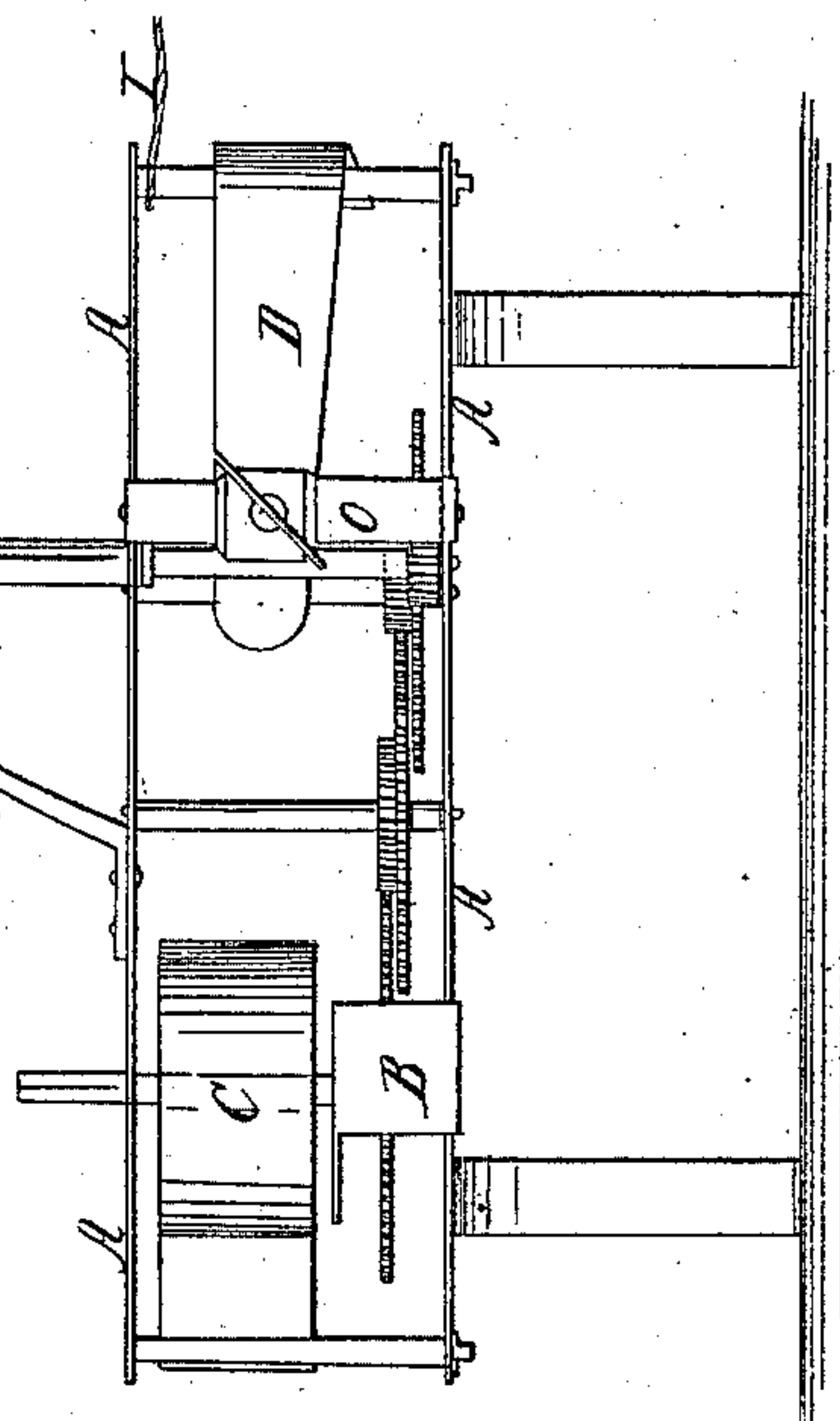
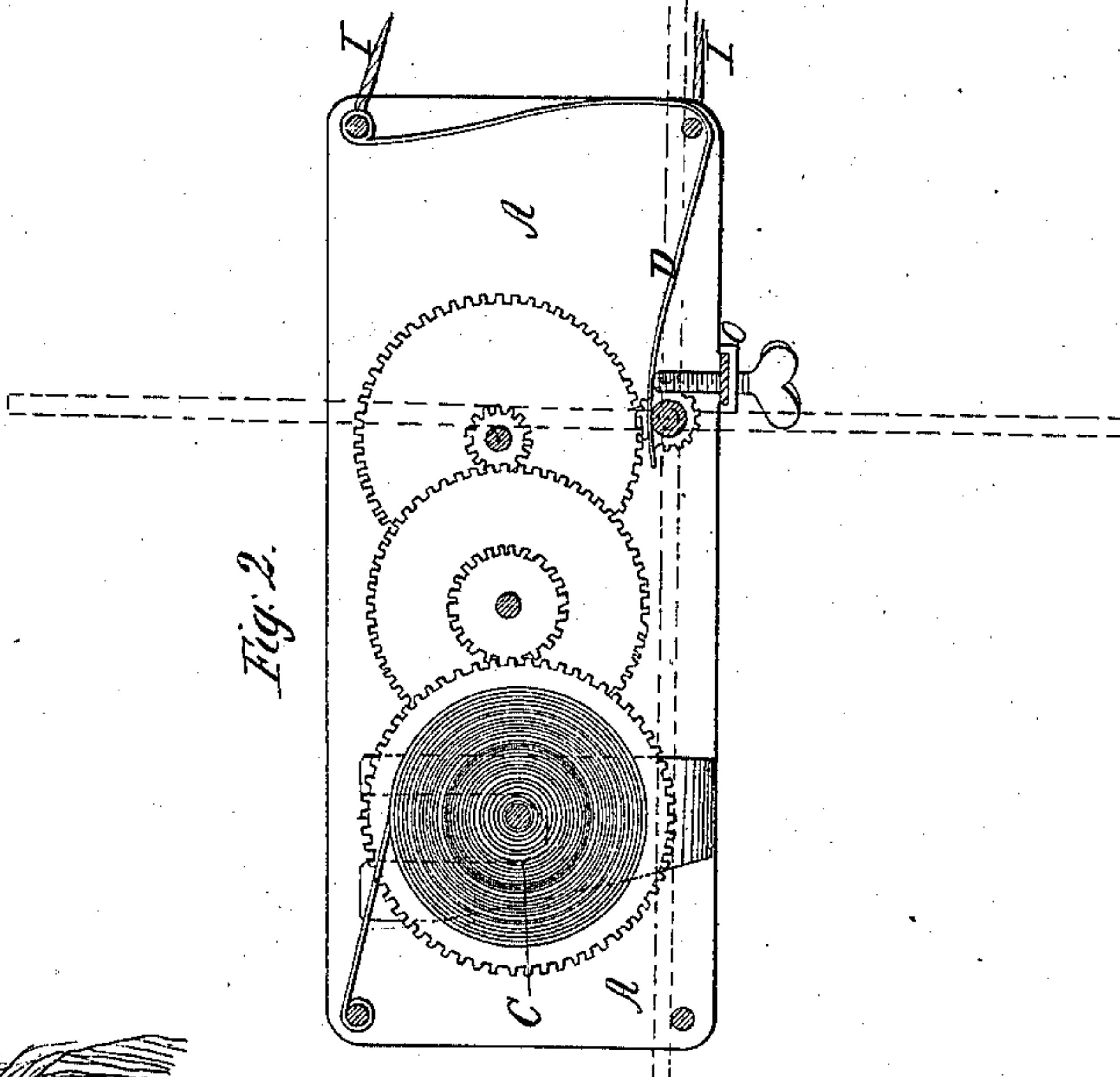
*N<sup>o</sup> 81,539.*

*Patented Aug. 25, 1868.*

*Fig. 1.*



*Fig. 2.*



*Witnesses;  
J. S. Reynolds  
S. Wilson*

*Inventor;  
J. H. Reynerson,*



# UNITED STATES PATENT OFFICE.

JAMES H. REYNERSON, OF PLEASANT PLAIN, IOWA.

## IMPROVED ROTATING FAN.

Specification forming part of Letters Patent No. 81,539, dated August 25, 1868.

*To all whom it may concern:*

Be it known that I, JAMES H. REYNERSON, of Pleasant Plain, Decatur county, and State of Iowa, have invented a new and useful Improvement in Rotating Fans.

Figure 1 is an elevated view, and Fig. 2 is a plan view of the machine.

The uses and purposes of this invention are to secure an agitation of the atmosphere in apartments; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, which will enable any mechanic versed in the art to make and construct a machine of this kind, and to set the same in operation.

A A are two plates of metal, which we will call "stay-plates," separated from each other, and held apart and to their places by means of stationary posts, fastened between them by means of screws, riveting, or key pins, said plates being sufficiently separated so as to admit the necessary works between them. Between the stay-plates are three cog-wheels, with corresponding pinions through which shafts pass, and rest loosely in said stay-plates, in which they turn as gudgeons, when the machine is in motion.

The main driving-wheel, to which the mainspring C is attached, is constructed substantially as the main driving-wheels of common spring-clocks, having a shaft extending outward sufficiently to admit of being wound up with a key. The outer end of the mainspring C is attached to one of the stationary posts holding the stay-plates apart.

H is the main shaft, to which are attached the fans or wings. This main shaft extends downward through the upper stay-plate, and into the lower one, playing loosely and freely in both of them, and having a washer around it, just underneath the upper plate, to prevent its rising out of its proper position. At the lower end of the shaft H is a pinion, with cogs corresponding with the cogs of the larger wheels, by which it is driven. This shaft extends upward from the main body of the machine a sufficient length to admit of having arms attached to it, extending at right angles

from it, to which the fans or wings are made fast, said wings being made of any kind of cloth or paper. The outside edges or border of the wings are bordered with long fringes, tassels, or feathers, for the purpose or driving away flies.

At B is a piece of metal, forked at one end, and so bent and arranged that it prevents the mainspring C from resting down on the driving-wheel. At D is an elastic spring, binding on and supported by two of the stationary posts, and passing around and inside of the shaft H, on which it binds with such force as to entirely impede the motion of the machine.

O is a piece of metal extending from one of the stay-plates to the other, and made fast at each end, and having through it a thumb-screw by which the spring D may be wholly or partially forced away from the shaft H, and thus regulate its motion, or stop the machine entirely, as desired.

A cord is attached to one end of the machine, as at I I, by which the main shaft, with the fans or wings, is thrown upon a horizontal line when the machine is suspended by the cord. Thus, the machine may be suspended from the ceiling, or from any other object, and hung over a bed, crib, cradle, settee, or chair. It has legs, also, by which it may be set upon the table, or upon any other place desired.

At N is a rod fastened to the top stay-plate, and extending upward around the main shaft H, for the purpose of supporting it firmly while in a horizontal position.

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

1. The combination of the spring D and thumb-screw running through the piece O, as described.

2. The arrangement of the support B between the main-spring C and driving-wheel, and the general construction of the whole machine, for the uses and purposes described.

JAMES H. REYNERSON.

Witnesses:

B. F. VANDOLAT,  
W. J. SULLIVAN.