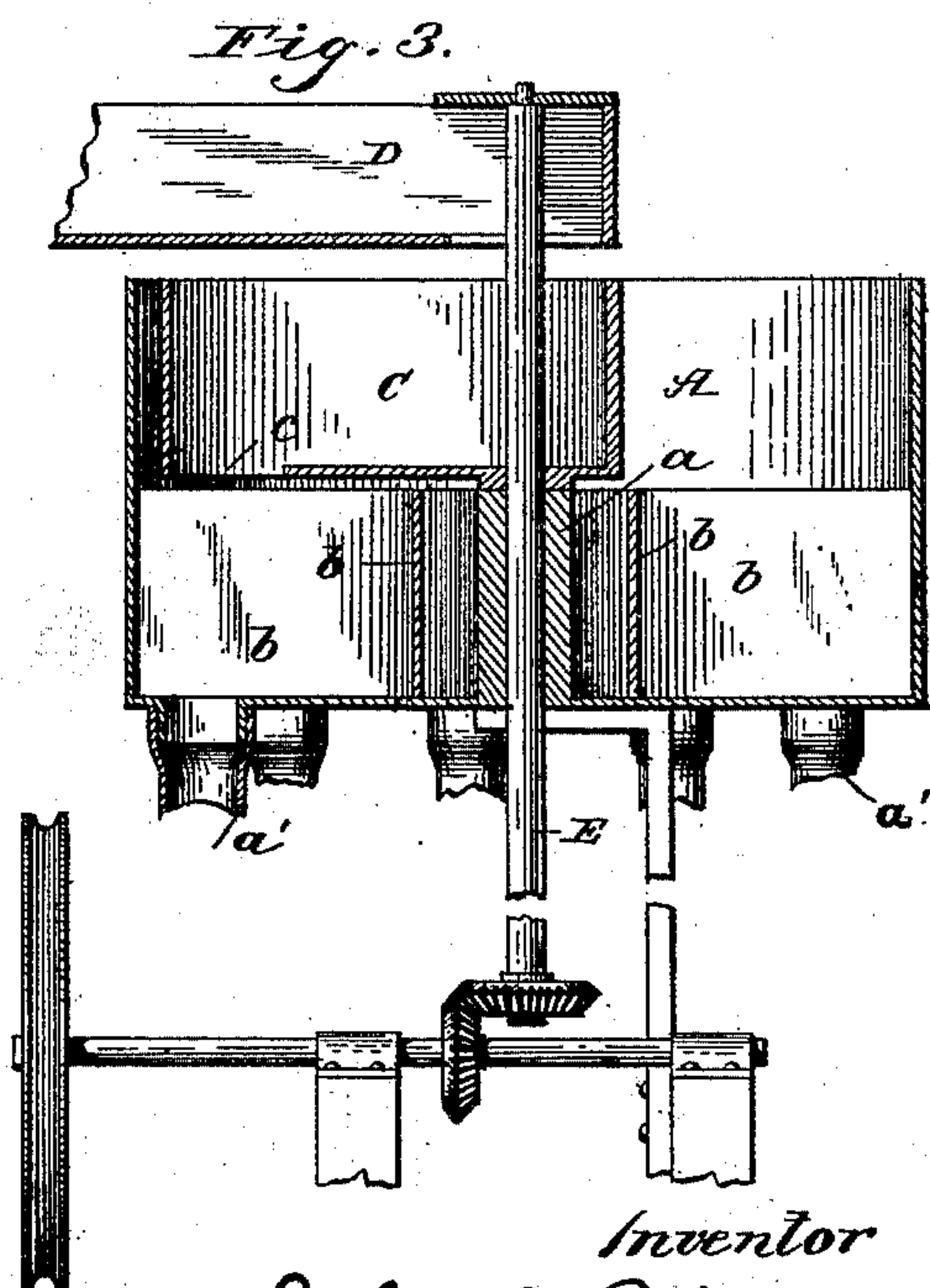
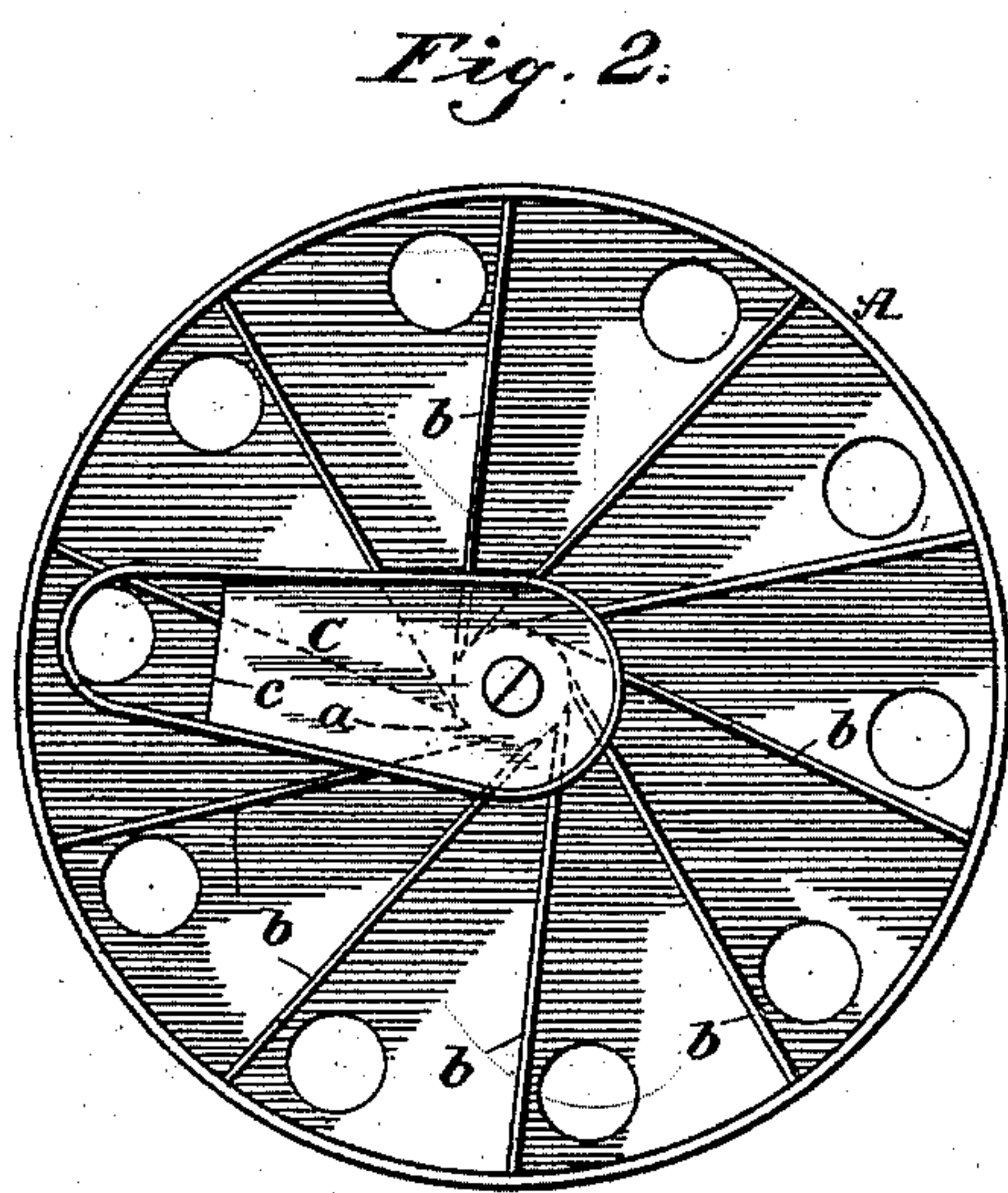
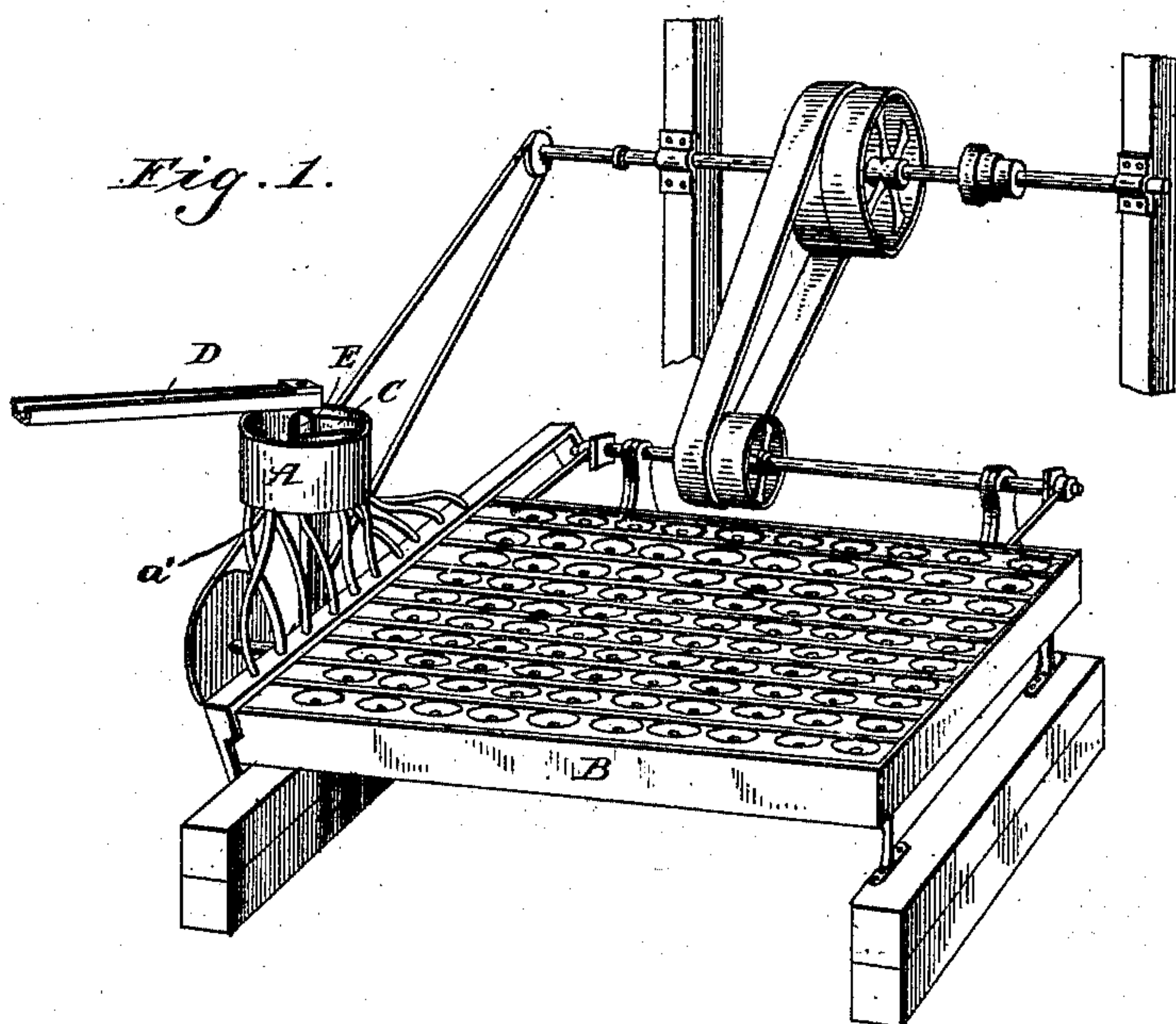


(No Model.)

J. D. COPLEN.
ORE DISTRIBUTER AND SAMPLER.

No. 442,017.

Patented Dec. 2, 1890.



Witnesses
Edwin L. Bradford
H. M. Shackbridge.

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UNITED STATES PATENT OFFICE.

JOHN D. COPLEN, OF DENVER, COLORADO.

ORE DISTRIBUTER AND SAMPLER.

SPECIFICATION forming part of Letters Patent No. 442,017, dated December 2, 1890.

Application filed May 13, 1890. Serial No. 351,618. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. COPLEN, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Ore-Distributers; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in ore distributers and samplers, the same being especially adapted for use in connection with ore-concentrators of that class described in Patent No. 390,755, granted to me October 9, 1888.

The invention consists in the combination of a tub or vessel provided with partitions dividing the lower part of it into proportionate compartments, a rotatable eccentric cup having an opening through its bottom arranged in the tub above the compartments, and chutes or conduits for conveying or conducting the pulverized ores to the points desired, as the heads of a concentrator of the class above referred to.

The invention also consists in other particular combinations hereinafter described and claimed.

In the drawings forming a part of this specification, Figure 1 is a perspective view showing my invention as applied to use in connection with a gravity-concentrator. Fig. 2 is a plan of the tub or vessel and the rotating eccentric cup; and Fig. 3 is a vertical section through the tub and cup, showing in elevation the gearing and shaft for operating the cup.

A is a tub, made of any suitable dimensions and materials. The lower part of the tub is divided into equal compartments by means of partitions *b b*. These partitions may be radial or may extend tangentially from a central hub or thimble *a* to the walls of the tub, as shown, the object being to have them of the same shape and capacity. Leading from each compartment of the tub is a passage or chute *a' a'* for conducting the contents to any desired place. I have shown a tub having passages leading to each one of the heads of longitudinal compartments of a gravity-con-

centrator B, having ten heads. The number of passages and heads in the concentrator should correspond; but the number may be varied to suit the convenience and judgment of the constructor.

C is an elongated cup or receptacle for first receiving the pulp from the supply-trough D. The cup or receptacle has an opening *c* through the bottom at its outer extremity for discharging its contents into the compartments of the tub. The cup is mounted upon a vertical shaft E, extending up through the center of the tub and the hub or thimble therein. The shaft is driven by any suitable gearing, connecting it with a motor and rotates the cup above the compartments in the tub. Pulp or pulp and water being fed to the cup by trough D and power being applied to shaft E, the material is distributed by means of said cup evenly to the compartments in the tub and thence to concentrator or other point in perfectly even amounts.

As a wet sampler this machine is equally reliable to any of the dry samplers known to me.

In practice flexible hose is sometimes used for the chute or conduit from the tub to the concentrator.

Having now described my invention, what I claim is—

1. An ore-distributer consisting of the combination of a rotary eccentric cup or receptacle having a discharge-opening in its extremity, a tub or reservoir having a plurality of like compartments, and like discharging-passages and chutes leading from each compartment, substantially as described.

2. In an ore-distributer, the combination of a rotary eccentric receptacle having a discharge opening, as described, at one extremity, a tub having a plurality of like equal compartments, like chutes or passages leading from the compartments, and a concentrator provided with heads corresponding in number with the compartments in and passages from the tub, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN D. COPLEN.

Witnesses:

SANFORD HOAG,
SMITH D. LOW.