

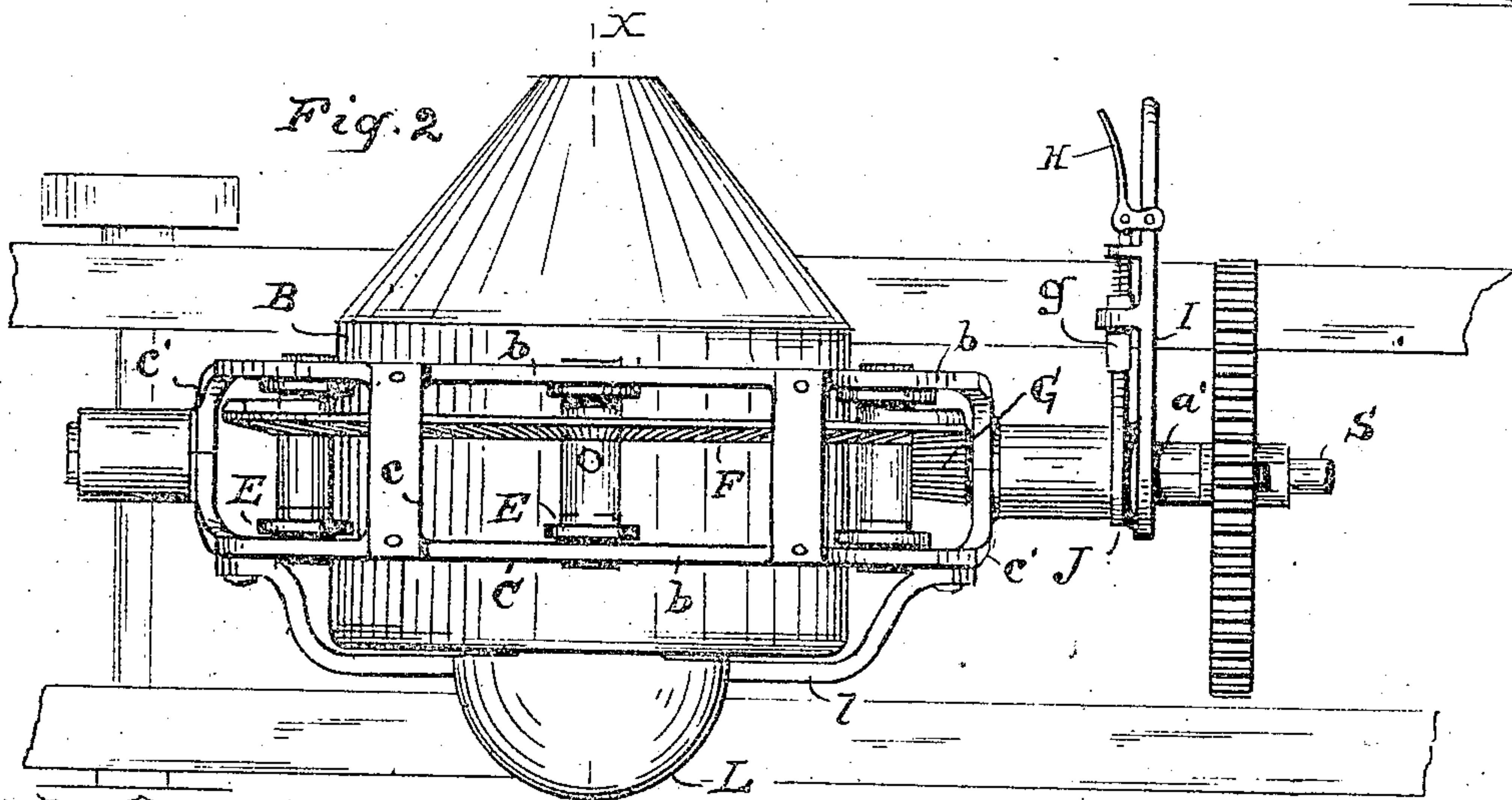
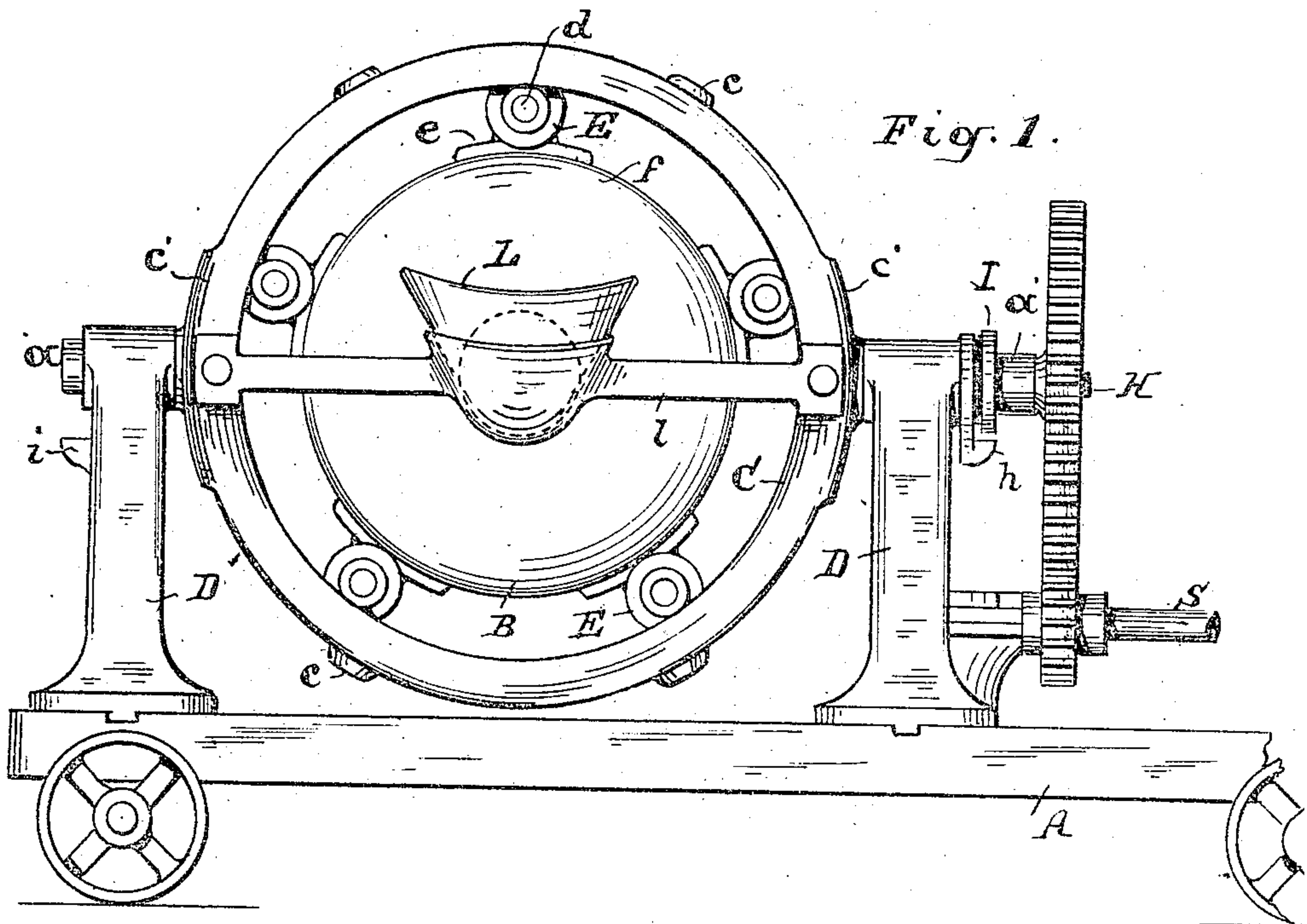
No. 886,018.

PATENTED APR. 28, 1908.

R. J. SELLENTINE.
CONCRETE MIXING MACHINE.

APPLICATION FILED JULY 17, 1907.

2 SHEETS—SHEET 1.



WITNESSES

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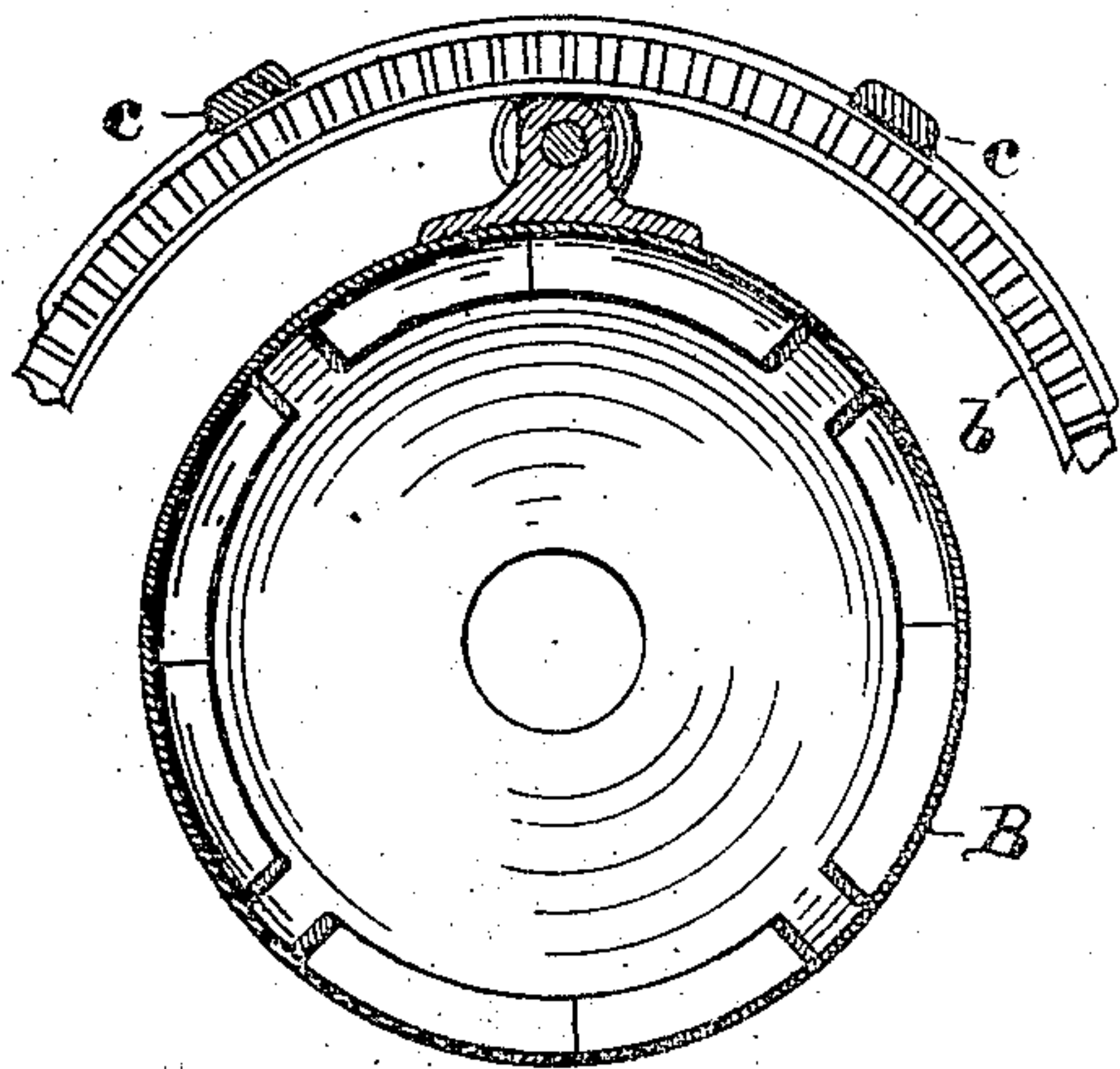


Fig. 4

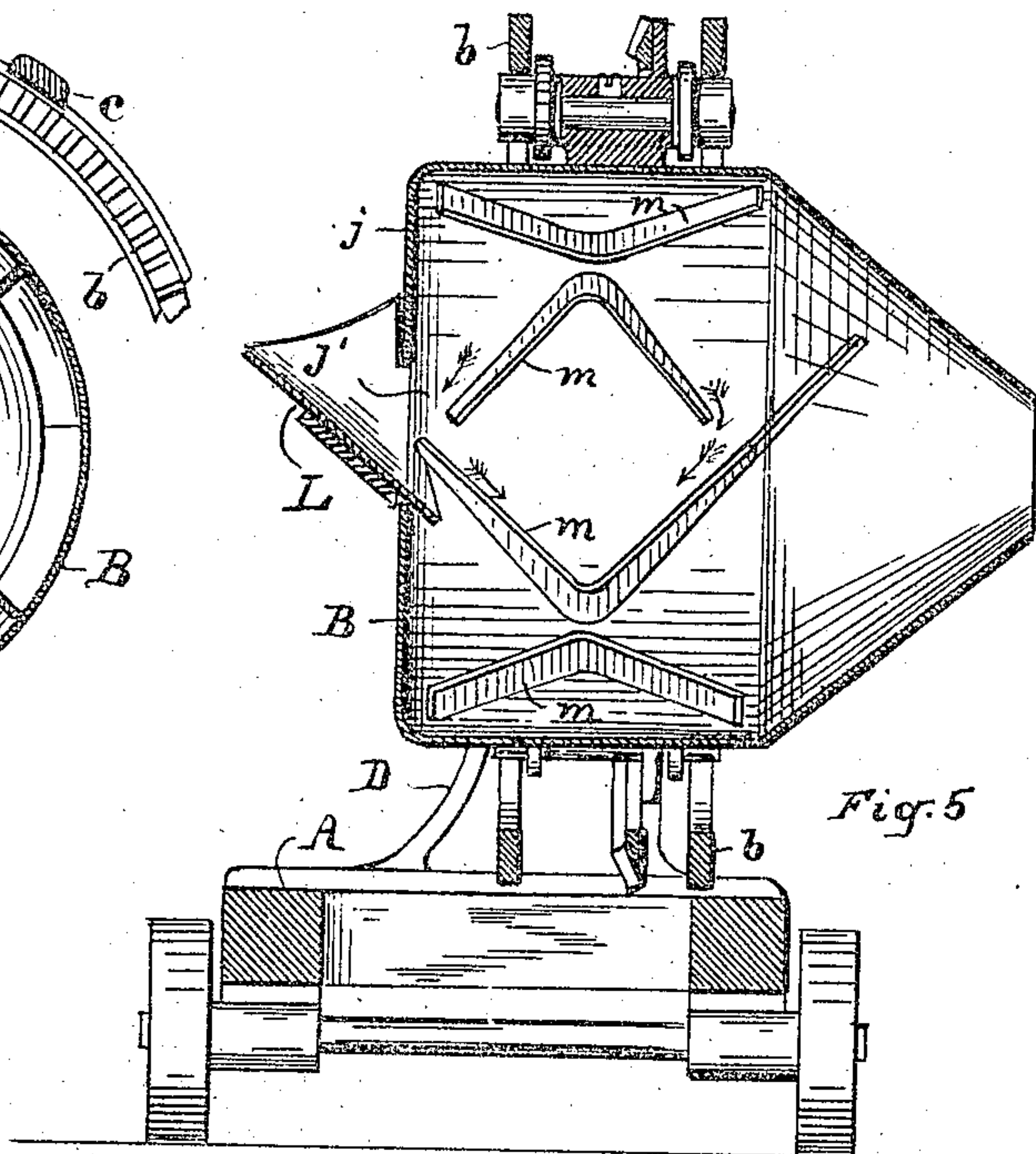


Fig. 5

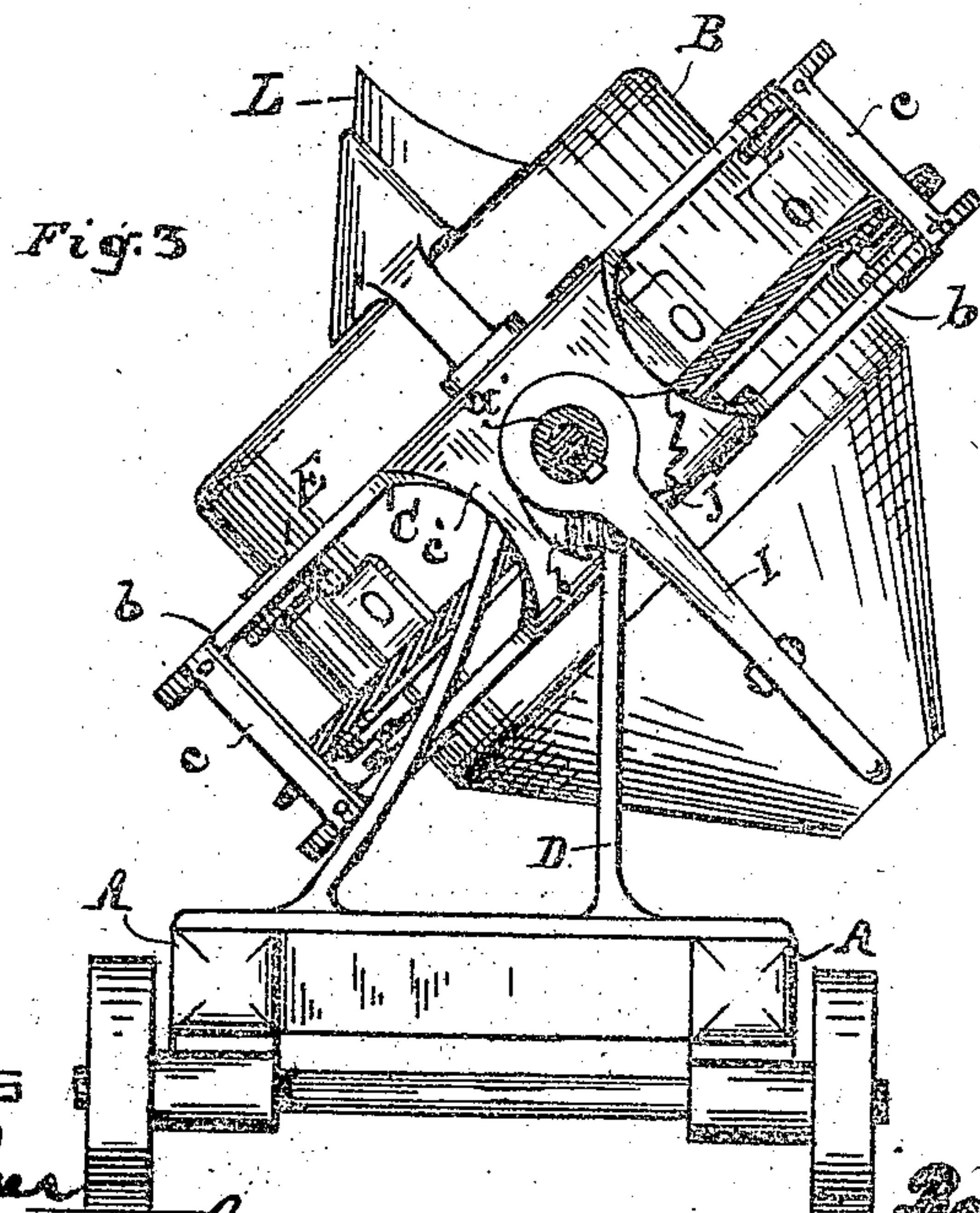


Fig. 3

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UNITED STATES PATENT OFFICE.

ROBERT J. SELLENTINE, OF CLEVELAND, OHIO.

CONCRETE-MIXING MACHINE.

No. 886,018.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed July 17, 1907. Serial No. 384,277.

To all whom it may concern:

Be it known that I, ROBERT J. SELLENTINE, a citizen of the United States, and a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Concrete-Mixing Machines, of which the following is a specification.

My invention relates to improvements in concrete mixing machines and the objects of my improvement are: first to provide a mixing drum which affords the largest capacity and efficiency in a given space, second to provide a simple and practical rotating mechanism for said drum, third to arrange opposing angular projections within said drum which cause a speedy and thorough mixing of the material with which the drum is charged, and fourth to render the tilting of said drum most convenient in any desirable inclination and to enable a ready return of said drum into its proper working condition and position. I attain these objects in a contrivance constructed substantially as illustrated in the accompanying drawings in which

Figure 1 is a face view of the feeding side of said machine. Fig. 2 is a plan view of said machine. Fig. 3 represents an end view as seen from the right of Fig. 1 the driving shaft being shown in section. Fig. 4 represents an interior view of the drum, and Fig. 5 is a vertical transverse sectional view on line *xx* see Fig. 2.

This mixing machine as a whole is mounted on a truck A so as to be easily portable and ready for use in any place or locality, where the service of such may be needed.

At one end of the truck frame A is mounted a suitable power element, steam, electric or explosion motor (not shown). Such motor is generally arranged in clutch connection with the driving shaft S, which imparts motion to the drum by a set of spur gearing or the like.

The drum B is supported and guided within and upon a circular open frame C; diametrically opposite, projecting from which are the trunnions *a a'* the latter being journaled in the standards D D, while the standards are secured to the truck frame A. This circular frame C consists of the rings *b b* which are held distant from each other and securely united by lateral braces *c c* and *c' c'* the latter two braces carrying the trunnions *a a'*, which may form an integral part of the rings, or they may be fastened thereto. Interposed

between the drum B and the said rings *b b* are a series of flanged rolls or wheels E E which revolve on arbors *d* of the brackets *e*, the latter being securely fastened to the shell or cylindrical part *f* of the drum substantially as shown in Figs. 1 and 5. The beveled gear ring F is also secured to or carried by said brackets *e* in concentric relation with and to the drum B, a pinion G engages said gear ring, the shaft H of said pinion is journaled in the trunnion *a'*; and outside of the trunnion the shaft is in connection with the motor by any suitable gearing direct or indirect for the purpose of rotating the drum.

As shown the trunnion *a'* is provided with a self locking tilting lever I, the spring actuated pawl *g* of which engages the serrated segment J which is a stationary part of the standard D. Simply upon compressing the latch H the pawl will disengage from the serrated segment and the drum may be lowered more or less, stop *h* being provided to limit the tilting of the drum from a horizontal position to the lowest desirable inclined one.

Figs. 1 and 5 illustrate the drum in horizontal position, while in Fig. 3 the drum is shown partially inclined, however the drum may be tilted still further until the lever I strikes the stop *h*.

In the main the drum is of cylindrical shape from the front head *j* to the junction of the cone part *k*; material is entered through the opening *j'* in the head, and discharged by way of the opening *k'* which is formed by the truncated cone *k*. A chute L is arranged in a fixed position directly in front of the opening *j* and around the lower edge of said opening said chute projects partly into the drum to facilitate the charging and entering of the material. As shown a bracket *l* is secured to the tilting frame C which bracket supports the chute substantially as shown. Inside the drum are provided a series of angular projections or strips *m* which are oppositely arranged in pairs substantially as shown in Fig. 5. By said strips the concrete material is kept continually in commotion and carried a certain distance upward within said drum thence it is thrown upon the succeeding pair of strips to be mixed with freshly incoming material until the drum becomes charged with a certain quantity that can advantageously be manipulated at a time. Each batch is agitated for a certain length of time thence it is discharged upon tilting the

drum approximately into the position as shown in Fig. 3. When empty the drum is returned into horizontal position for the next charge and so on.

5 What I claim and desire to secure by Letters Patent is:

In a concrete mixing machine, the combination of a tilting frame having two drum supporting rings, with a mixing drum, a beveled gear around and concentric with said

drum, a plurality of brackets which secure the gear to the drum, shafts rotatably mounted in said brackets parallel with the axis of the drum, and flanged wheels secured to the ends of said shafts and engaging the inner peripheries of said rings respectively. 15

ROBERT J. SELLENTINE.

Witnesses:

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