

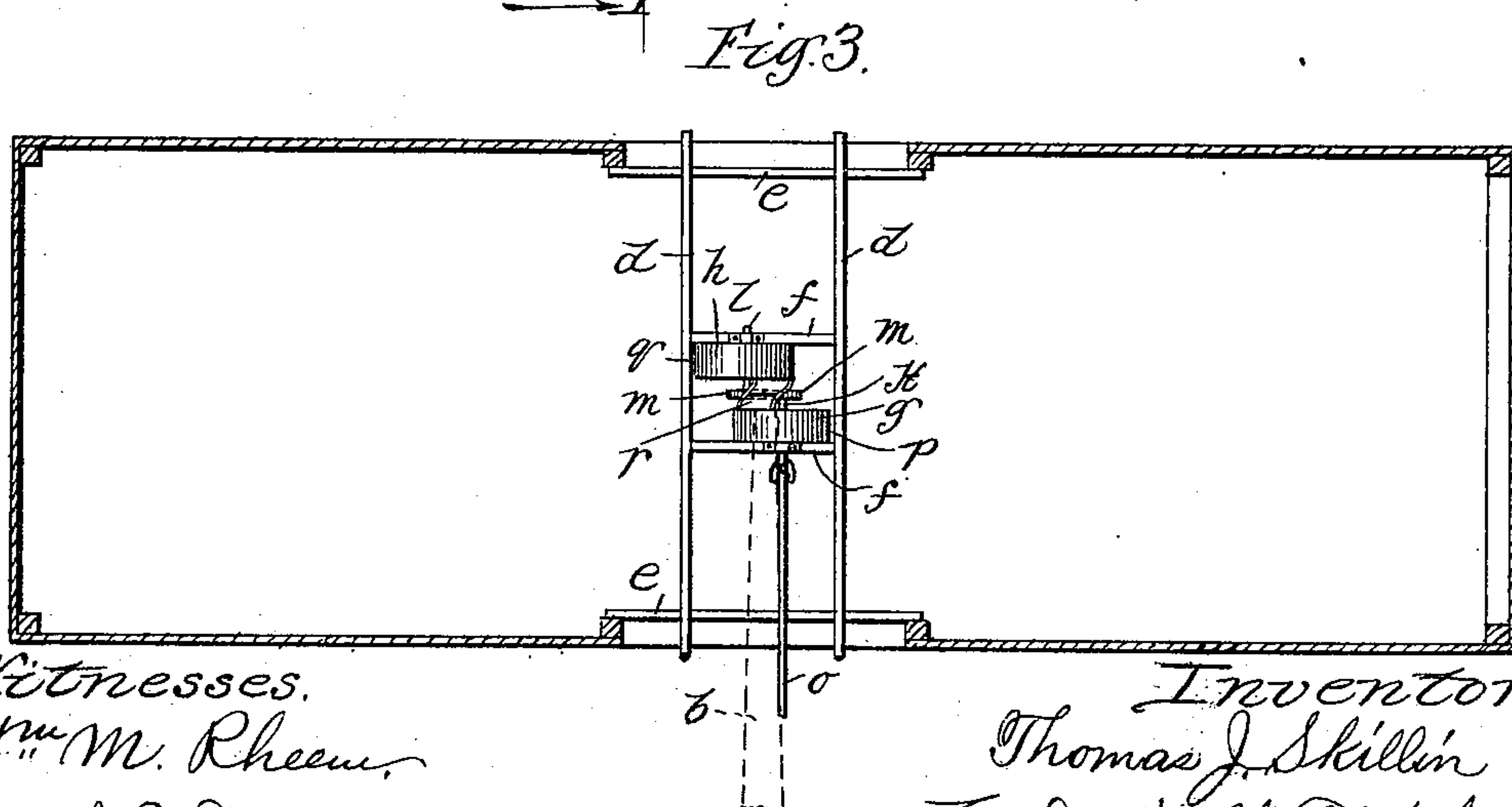
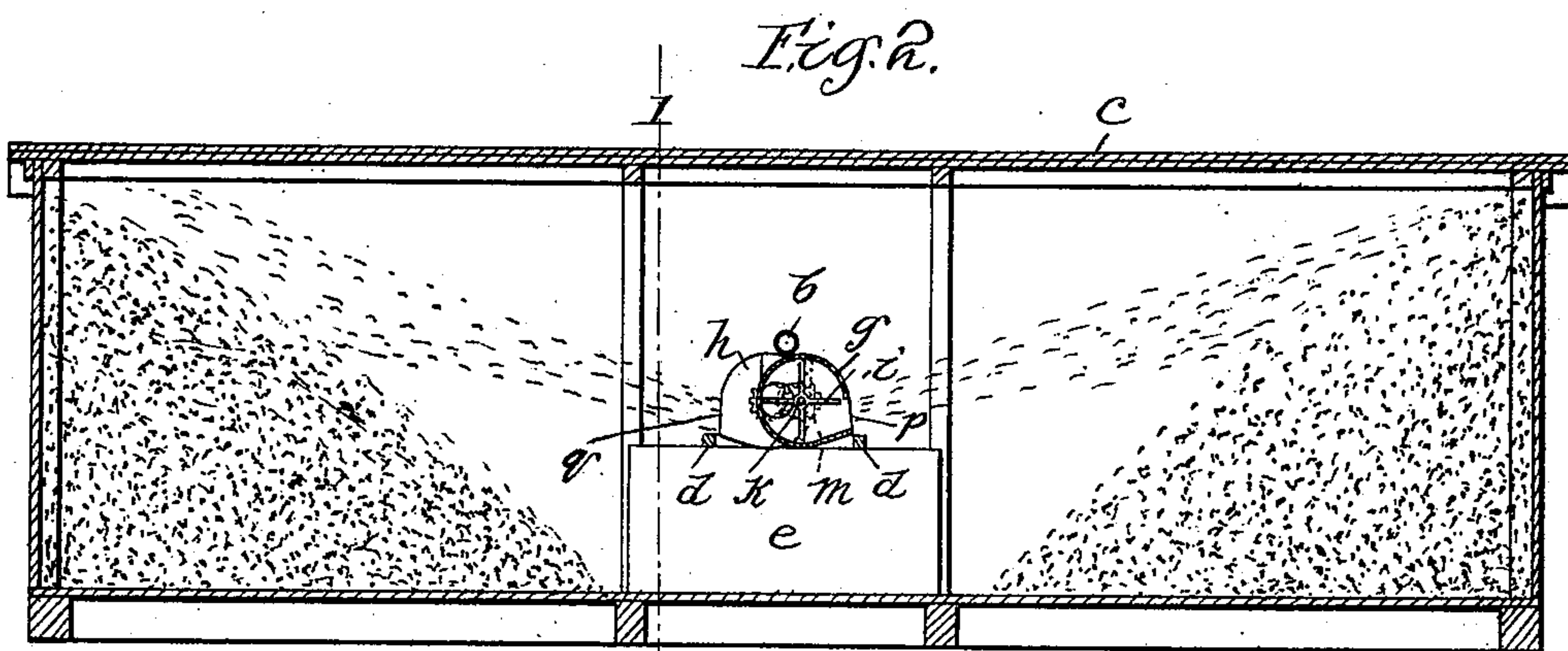
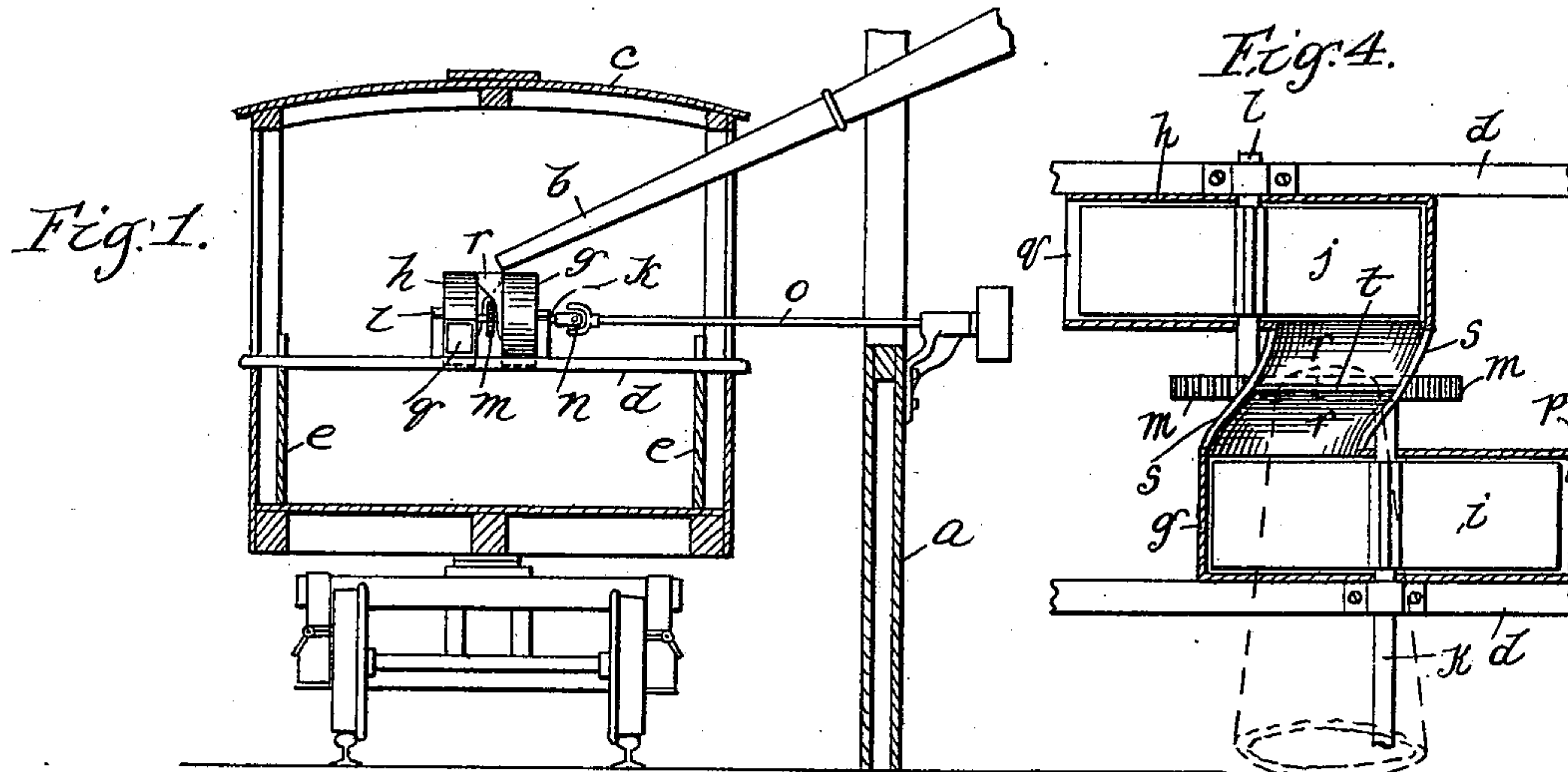
No. 619,799.

Patented Feb. 21, 1899.

T. J. SKILLIN.
GRAIN TRIMMING DEVICE.

(Application filed Nov. 14, 1898.)

(No Model.)



Witnesses.
Wm. M. Rheem.
Orval O. Stearns.

Inventor
Thomas J. Skillin
By David H. Fletcher,
his Atty.

UNITED STATES PATENT OFFICE.

THOMAS J. SKILLIN, OF CHICAGO, ILLINOIS.

GRAIN-TRIMMING DEVICE.

SPECIFICATION forming part of Letters Patent No. 619,799, dated February 21, 1899.

Application filed November 14, 1898. Serial No. 696,450. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. SKILLIN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Grain-Trimming Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which similar letters of reference in the different figures indicate like parts.

The object of my invention is to provide means for loading grain-cars from elevators whereby the grain may be simultaneously and uniformly distributed and thoroughly mixed in opposite ends of the car, all of which is hereinafter more particularly described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a transverse vertical sectional view of a car and a portion of a grain-warehouse, showing my improved grain-trimming device within said car, said view being taken upon the line 1 1, Fig. 2, as indicated by the arrow there shown. Fig. 2 is a longitudinal sectional view of a car, showing said device as it would appear in operation. Fig. 3 is a plan view of a car in horizontal section, showing my improved device supported therein; and Fig. 4 is an enlarged plan view in detail of said distributing device, in which the casings are shown in horizontal section.

Referring to the drawings, *a* indicates a warehouse from which the usual grain-spout *b* is conducted for conveying the grain from the bins to the car *c*.

My improved distributing device is adapted to be mounted upon the usual tripod or upon a framework consisting of cross-bars *d d*, which are supported at their respective ends upon the tops of the ordinary inside grain-car doors *e e*. The parallel bars *d d* are connected by means of cross-bars *f f*, to which they are rigidly attached, the whole forming a portable frame, upon the top of which is secured the casings *g h* of fans *i j*. (Better shown in Fig. 4.) The fans, respectively, are mounted upon shafts *k l*, which are arranged parallel to each other and connected by means of gears *m m*. The shaft *k* is provided with a knuckle-joint *n* or other suitable means whereby it may be detachably connected with

a driving-shaft *o*, connected with a source of power. The fan-casings are provided with education-openings *p q*, arranged toward opposite ends of the car with respect to each other. A hopper *r*, (better shown in Fig. 4,) having end pieces *s s*, is interposed between the fan-cases *g h*. Said hopper is provided with a bottom which slants downwardly in opposite directions from a middle line or ridge *t*, one incline communicating with a side opening in the fan-case *g* and the other with a corresponding opening in the case *h*.

The gears *m m* cause the fans to rotate in opposite directions, and as the grain falls from the spout *b* into the hopper it is divided, so that a part enters the induction-opening of one fan, while the remainder passes into the other. The opposite rotation of the fans causes the grain to be simultaneously and uniformly distributed to opposite ends of the car, as indicated in Fig. 2, and to be thoroughly mixed and aerated, which serves to greatly improve its quality.

It will be seen from the foregoing that however much the grain may vary at different levels in the bin the same relative variation will occur from end to end of the car, and should a grain-tester be inserted in the same manner at both ends of the car the samples obtained thereby would show the same average grade. This, it is obvious, would permit a just and fair official inspection and show a proper grading of the contents.

In lieu of the frame, as described, the device may be supported by means of a tripod or in any other well-known manner, inasmuch as this forms no part of my invention; nor do I limit myself to any specific means for directing the grain from the delivery-spout to the fans, as it is obvious that a mere flat table or receiving-surface between the fans or a bifurcated spout having its branches directed laterally would serve the purpose.

Having thus described my invention, I claim—

1. The combination in a device of the class described, of double revoluble fans or paddle-wheels having horizontal axes, said fans being arranged side by side and provided with means for rotating them in opposite directions with respect to each other, substantially as described.

2. In a device of the class described, the combination of revoluble fans having horizontal axes and cases provided with adjacent induction-openings, the eduction-openings of
5 said fans being disposed in opposite directions, means for delivering the grain to said induction-openings, and means for rotating said fans in opposite directions, whereby grains of varying grades may be uniformly
10 distributed lengthwise of the car, substantially as described.

3. In a device of the class described, the combination of the fans or paddle-wheels *i j*, mounted side by side upon separate shafts,

gear-wheels *m m*, means for actuating one of 15 said shafts, and an intermediate hopper or receiver arranged to distribute the grain laterally in opposite directions to said fans, substantially as described.

In testimony whereof I have signed this 20 specification, in the presence of two subscribing witnesses, this 12th day of November, 1898.

THOMAS J. SKILLIN.

Witnesses:

D. H. FLETCHER,
FLORENCE KING.