

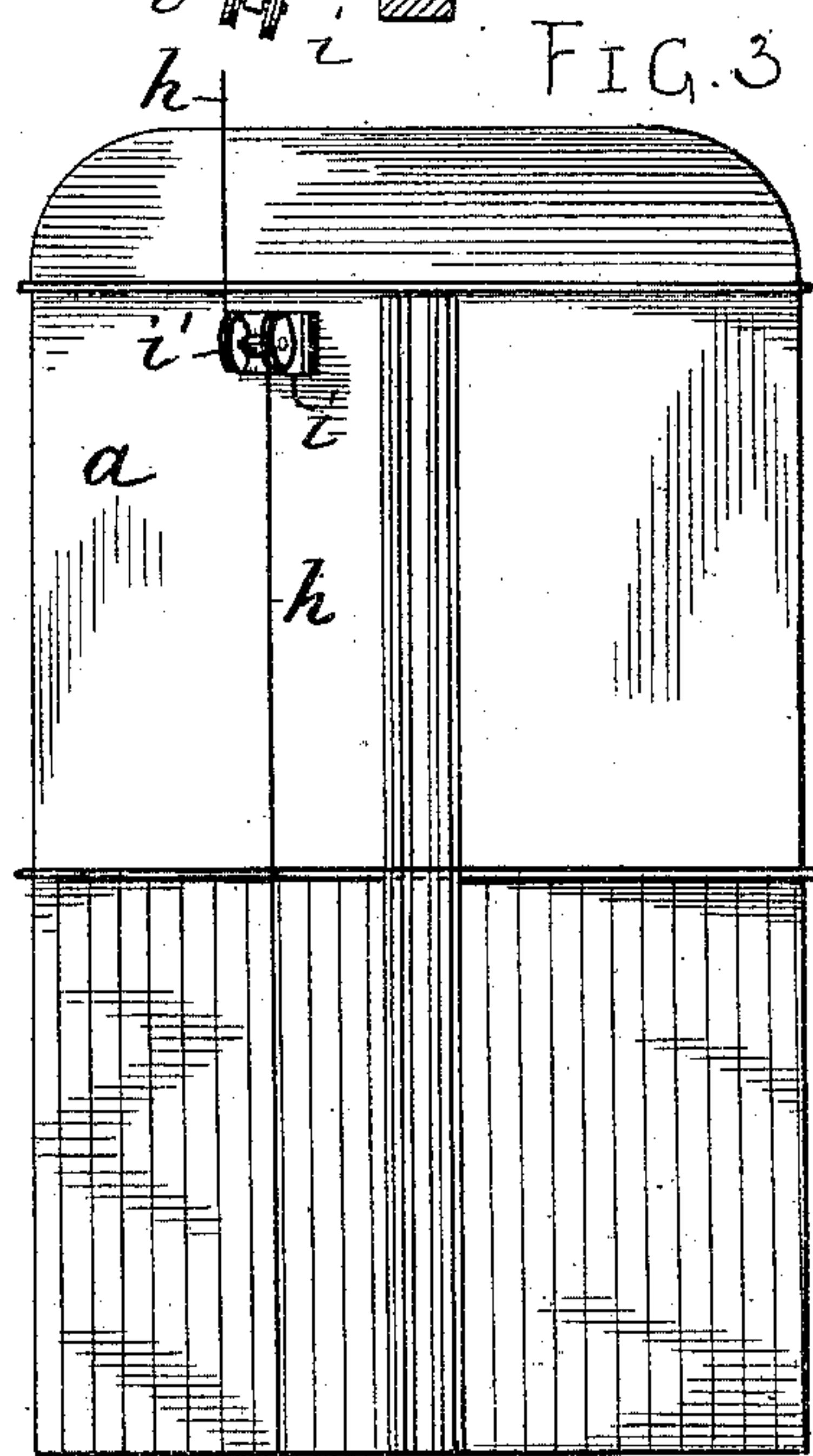
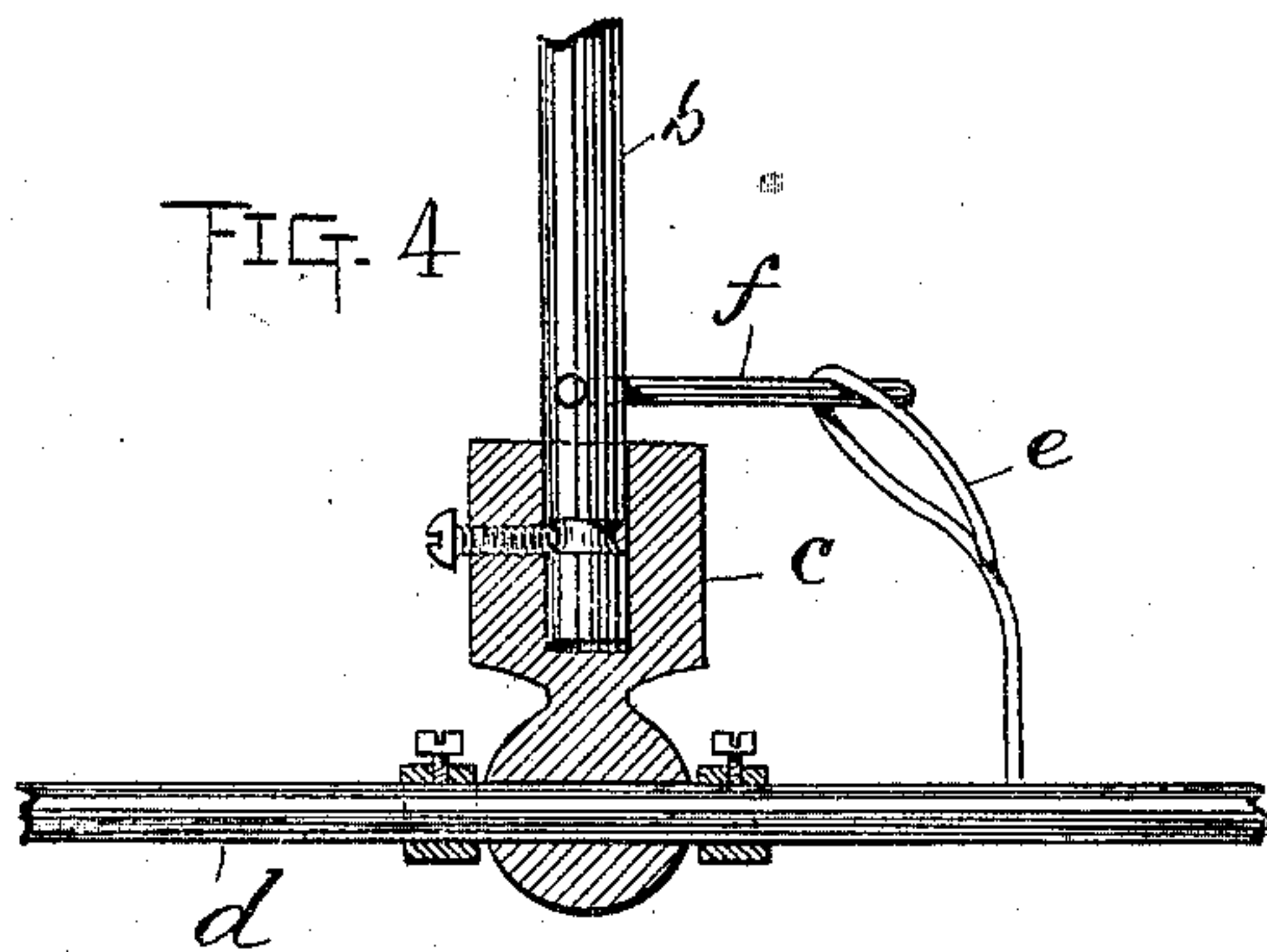
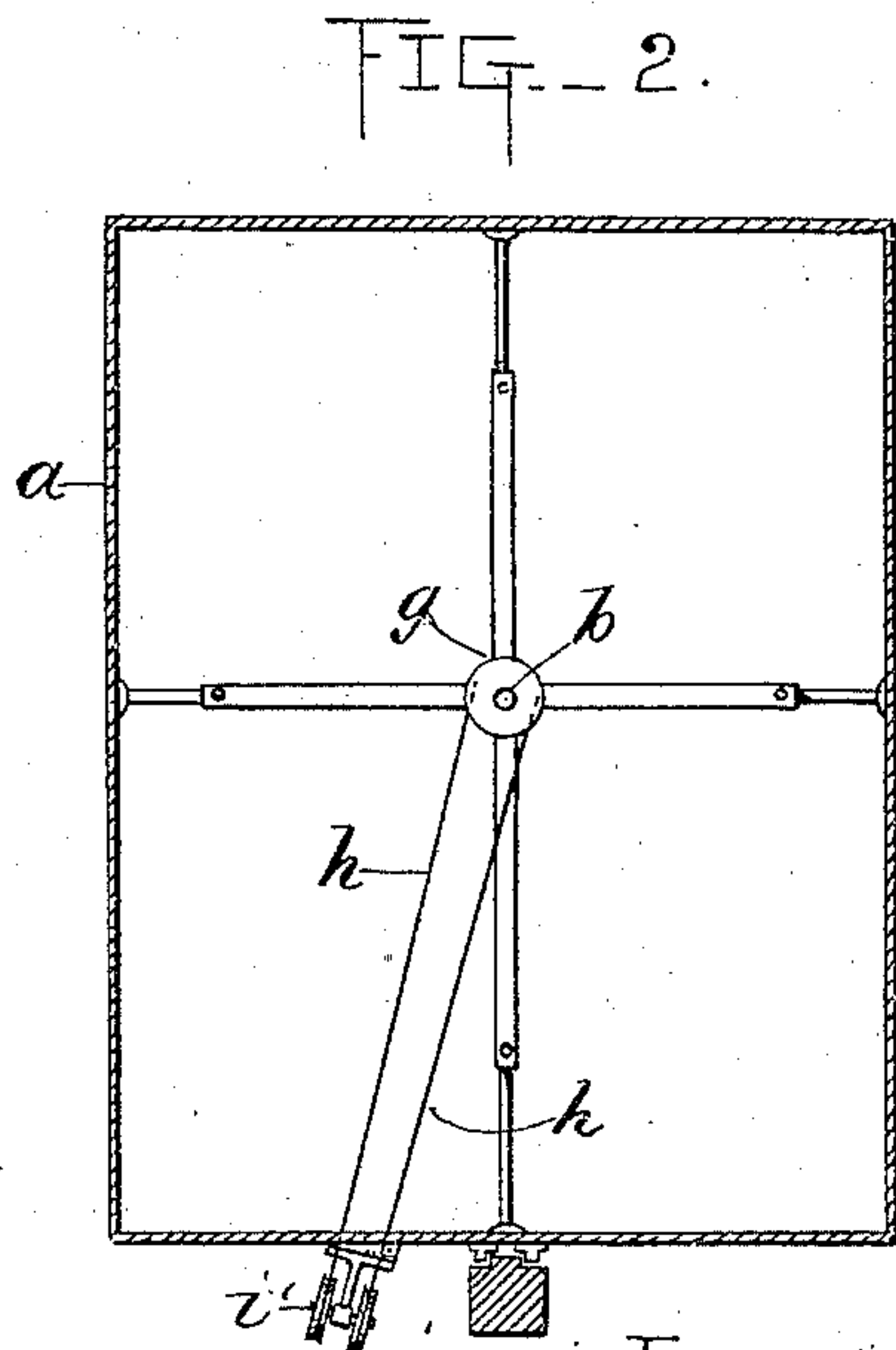
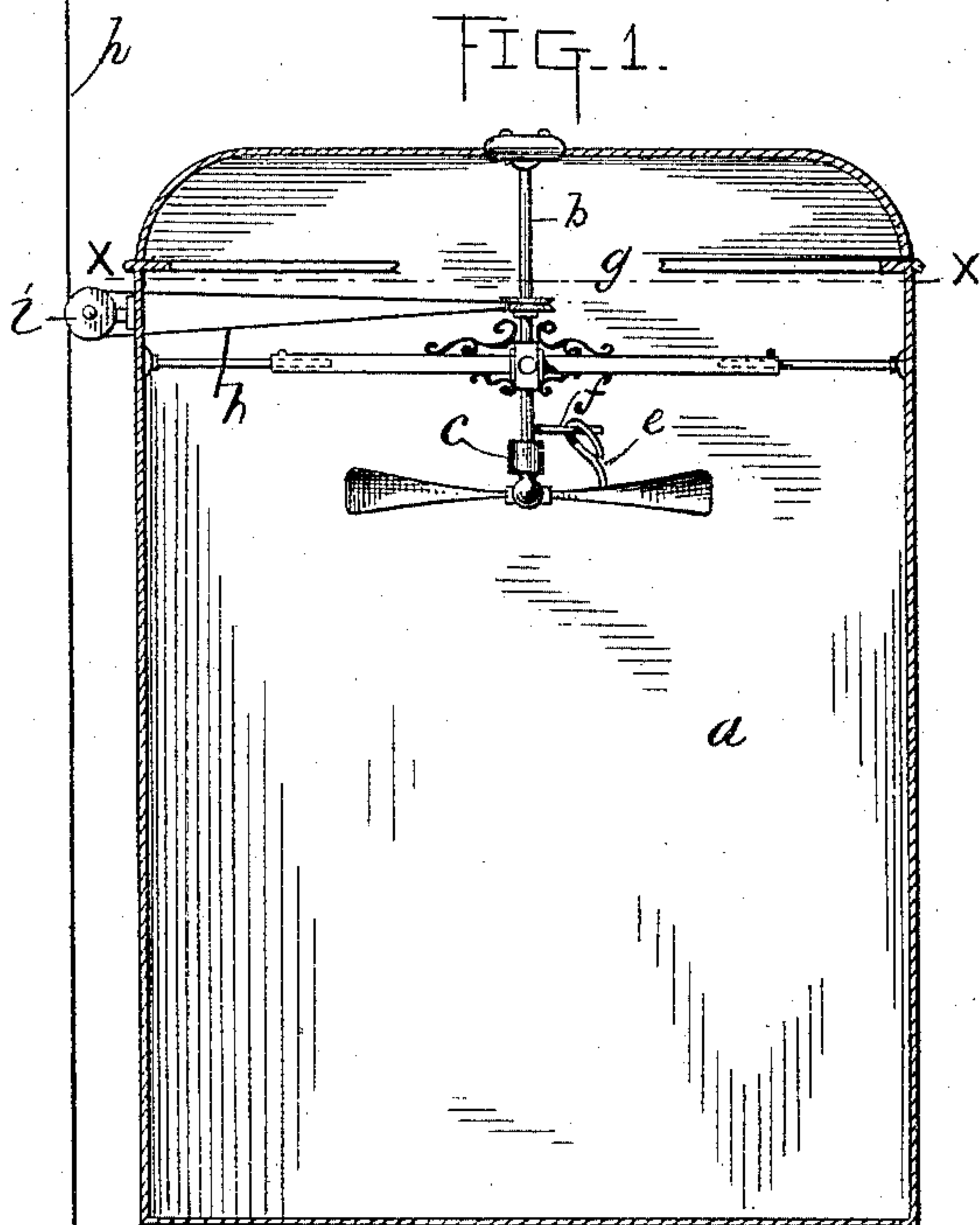
(No Model.)

2 Sheets—Sheet 1.

A. RICHTER & J. H. LANCASTER.  
FAN FOR ELEVATOR CARS.

No. 432,768.

Patented July 22, 1890.



Witnesses  
E. C. Rowland  
Frank Keller.

Inventors  
Arthur Richter.  
James H. Lancaster.  
By their Attorney  
James H. Lancaster

(No Model.)

2 Sheets—Sheet 2.

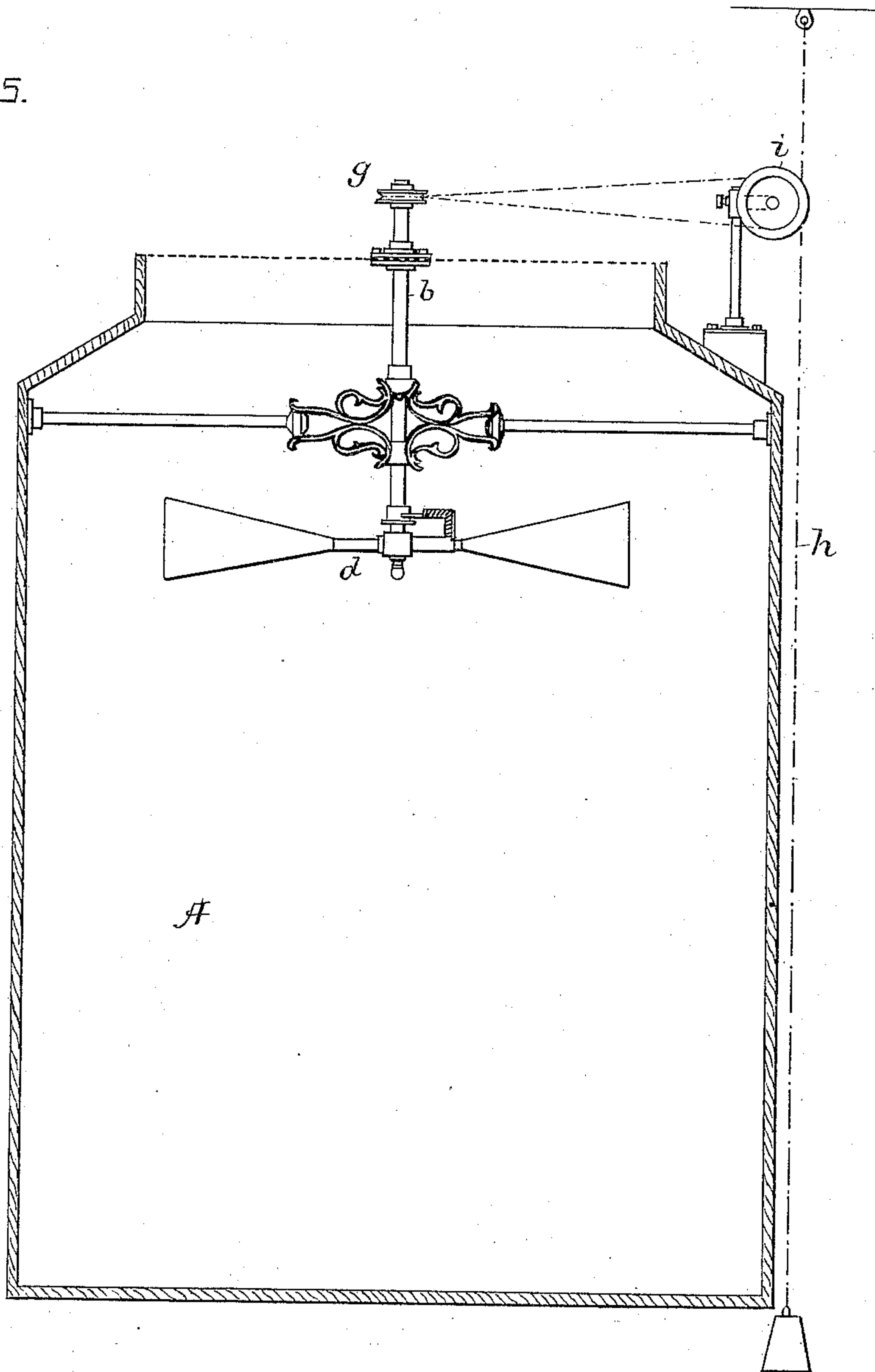
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Fig. 5.



ATTEST:

Frank Keller.

*Of Averell*

INVENTORS:

Arthur Richter

James H. Lancaster

per James H. Lancaster -  
Attorney.



# UNITED STATES PATENT OFFICE.

ARTHUR RICHTER AND JAMES H. LANCASTER, OF NEW YORK, N. Y.

## FAN FOR ELEVATOR-CARS.

SPECIFICATION forming part of Letters Patent No. 432,768, dated July 22, 1890.

Application filed October 4, 1889. Serial No. 326,067. (No model.)

### *To all whom it may concern:*

Be it known that we, ARTHUR RICHTER and JAMES H. LANCASTER, citizens of the United States of America, and residents of New York, in the county of New York, New York State, have invented certain new and useful Improvements in Fans for Elevator-Cars, of which the following is a full, clear, and exact specification.

10 Our invention relates to an automatic fanning device connected with elevator-cars usually employed in conveying persons to and from the various floors of a building, all of which will be fully described hereinafter.

15 Our invention consists of a fanning or cooling device which is operated by the moving elevator-car and connected with suitable mechanical contrivances, the latter being adapted to operate and also change the position of the wings or blades of the fan in accordance with the direction of the line of travel in which the elevator-car may be going, all of which will be hereinafter more clearly described, and pointed out in the claims.

25 In the drawings, Figure 1 represents a vertical section of a car having a fan arranged therein. Fig. 2 is a cross-section taken on line *xx* of Fig. 1. Fig. 3 is a side elevation of the car, showing the vertical wire or other suitable cord with which the driving-pulleys engage. Fig. 4 is an enlarged detached detailed view of the mechanism adapted to change the position of the fan blades or wings automatically. Fig. 5 represents the driving mechanism of the fan composed of gear-segments, or they can be complete gear-wheels.

Similar letters refer to similar parts throughout the drawings, in which—

40 A represents the elevator-car, provided with a dependent reversible rotary shaft *b*, the power end thereof provided with the socket *c c*, the power portion of the latter provided with a horizontal perforation for the reception of the arm *d*, to the latter of which is rigidly fixed an upwardly-projecting loop *e*, adapted to engage with a horizontal arm *f*,

also made rigid to the dependent reversible rotary shaft *b*, the latter of which is provided with the pulley *g*, upon which the wire or cord *h* travels, thence upon the pulleys *i i*, and which may be arranged in any suitable position.

It will be obvious that when the car is ascending the pulleys engaged with the wire *h* will revolve, as will also the pulley *g*, the latter of course driving the fan and the mechanism connected therewith; but when the car reverses its movement the pulley will do likewise and will throw the arm *f* around, thereby carrying with it the loop *e*, thus turning the arm *d*, the latter carrying with it the fan wings or blades, thus accomplishing the result desired. The mechanism may also be arranged for giving a reciprocating action instead of a rotating motion to the fan-blades.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the rotary fan and its shaft having socket *c*, perforated horizontally, of the arm *d*, passed through said perforation, the arm *f* on the fan-shaft, and the loop on the arm *d* and engaging the arm *f*, substantially as shown and described.

2. The combination, with the reversible rotary shaft and the pulley *g* thereon, of the socket *c*, perforated horizontally, the arm *d*, passed through the perforation in the said socket, the arm *f* on the rotary shaft, the loop *e* on the arm *d* engaging the arm *f*, the pulleys *i i*, and the cord *h*, all combined, arranged, and operating substantially as shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 24th day of June, 1889.

ARTHUR RICHTER.  
JAMES H. LANCASTER.

Witnesses:

SAML. V. SPEYER,  
CARRIE THOMAS.