

(No Model.)

3 Sheets—Sheet 1.

G. F. LUTTICKE.
TOY LOCOMOTIVE.

No. 409,991.

Patented Aug. 27, 1889.



Witnesses:

G. J. Reafern
A. J. Abbott

Inventor:

E. A. Luthicke

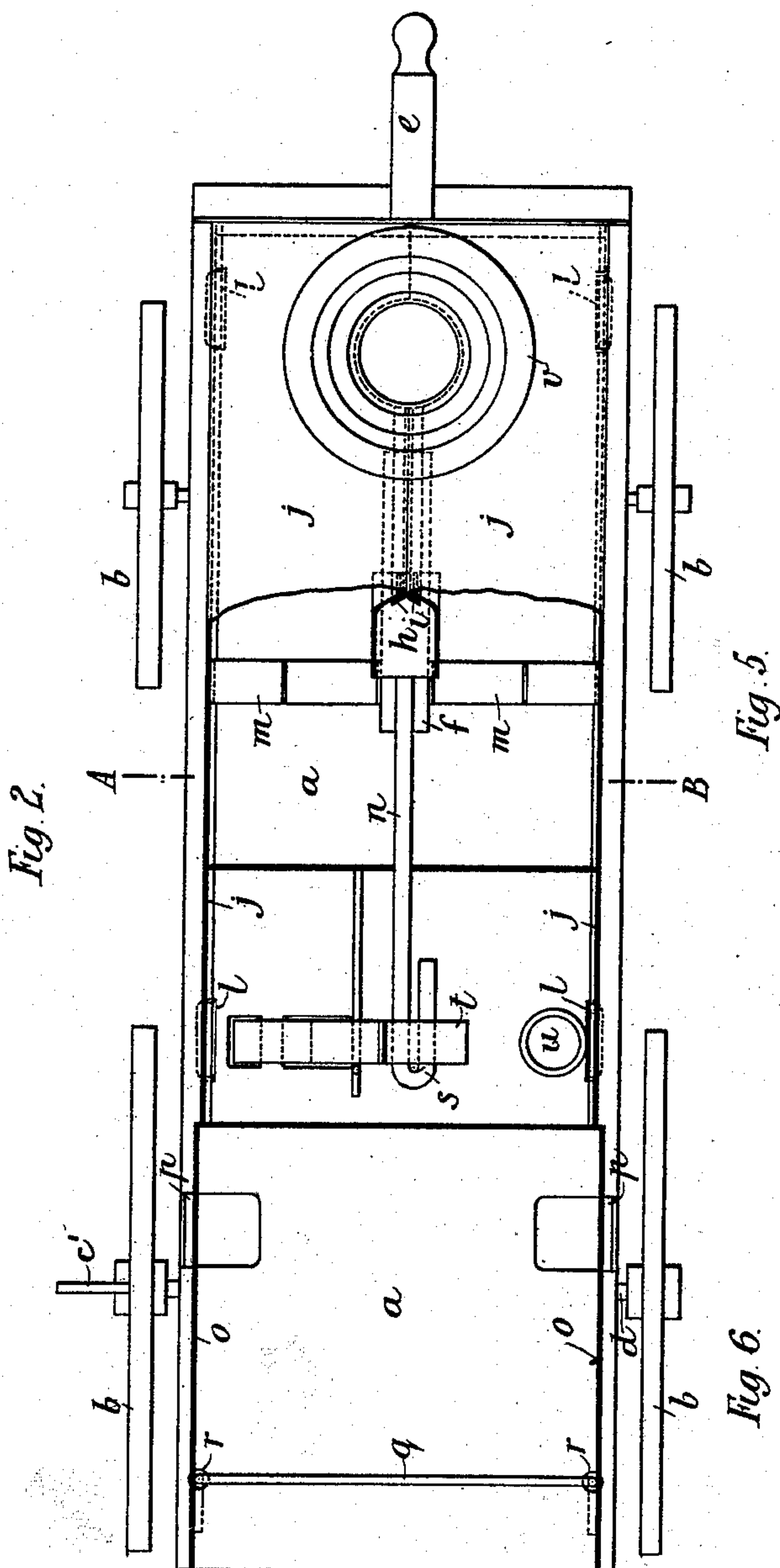
(No Model.)

3 Sheets—Sheet 2.

G. F. LUTTICKE.
TOY LOCOMOTIVE.

No. 409,991.

Patented Aug. 27, 1889.



Witnesses:
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Inventor:
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(No Model.)

3 Sheets—Sheet 3.

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Fig. 4.

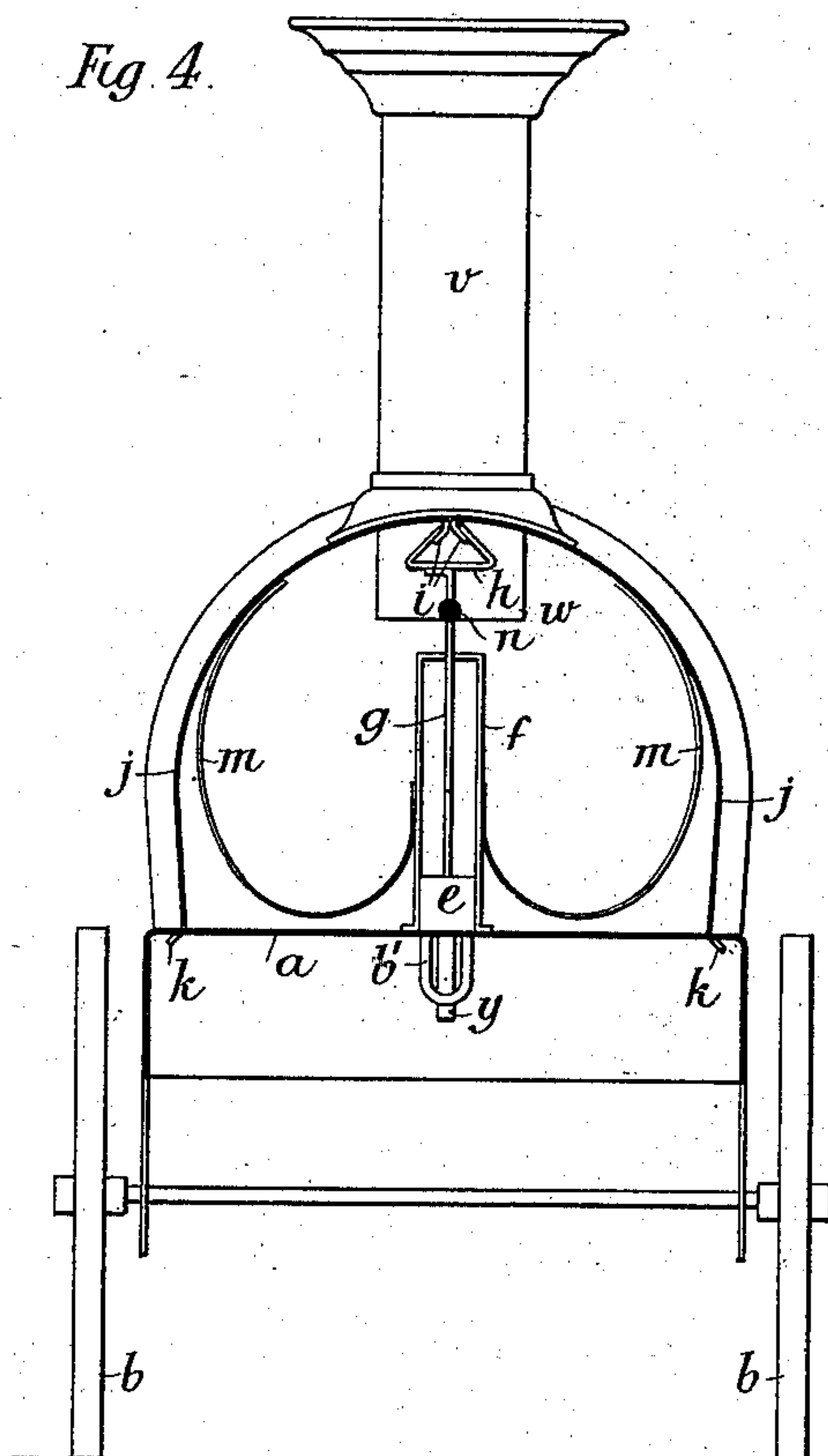


Fig. 3.

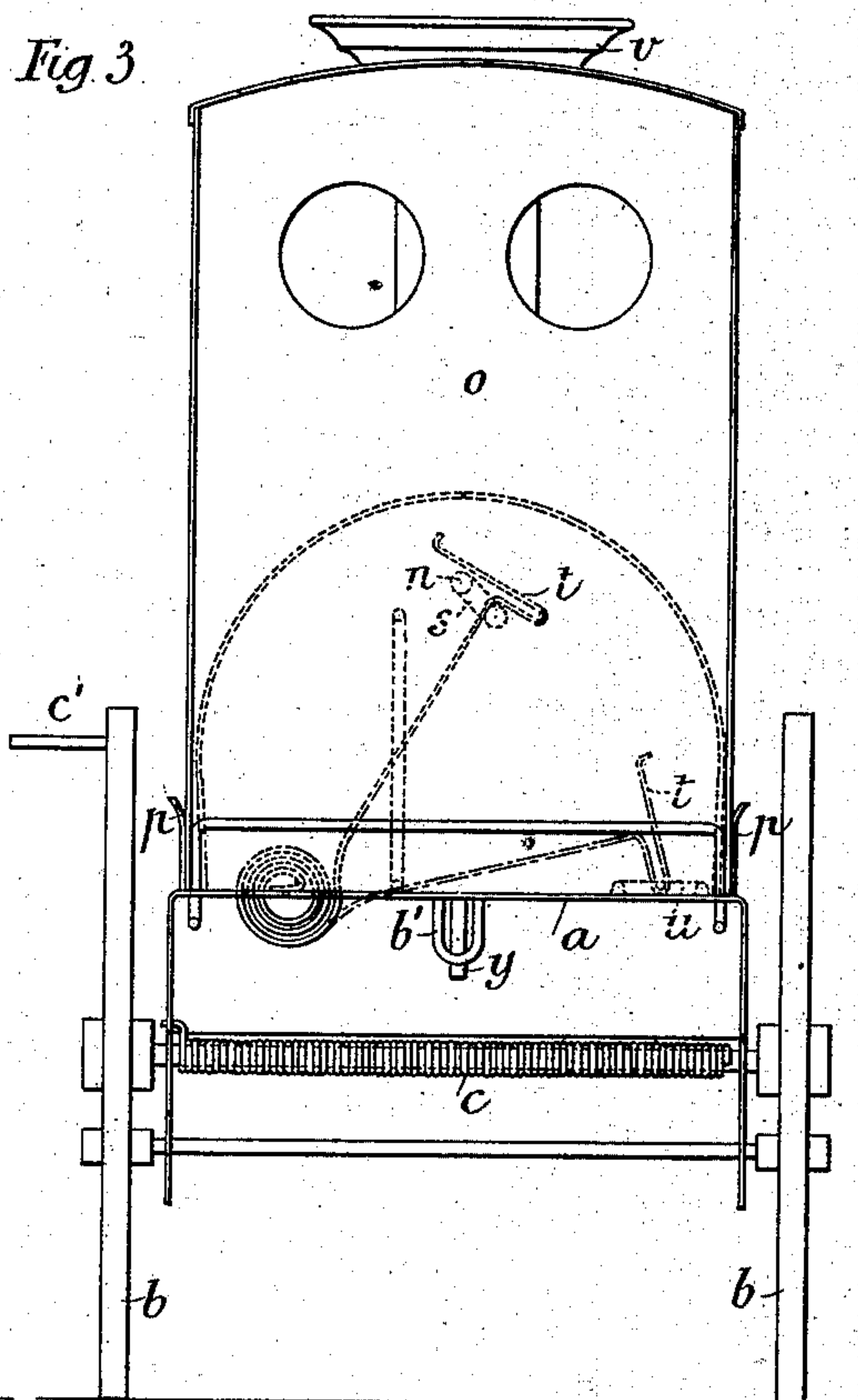
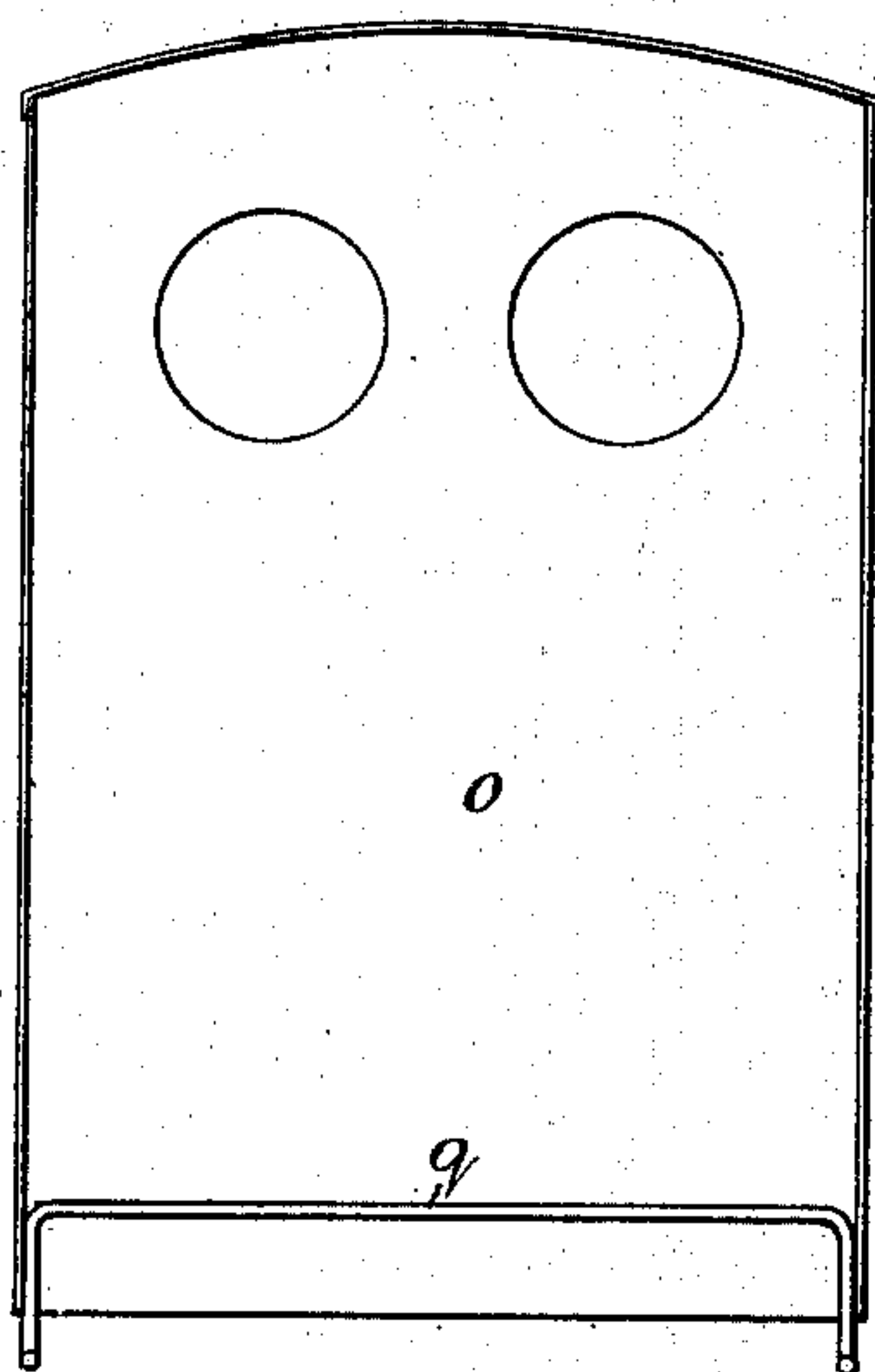
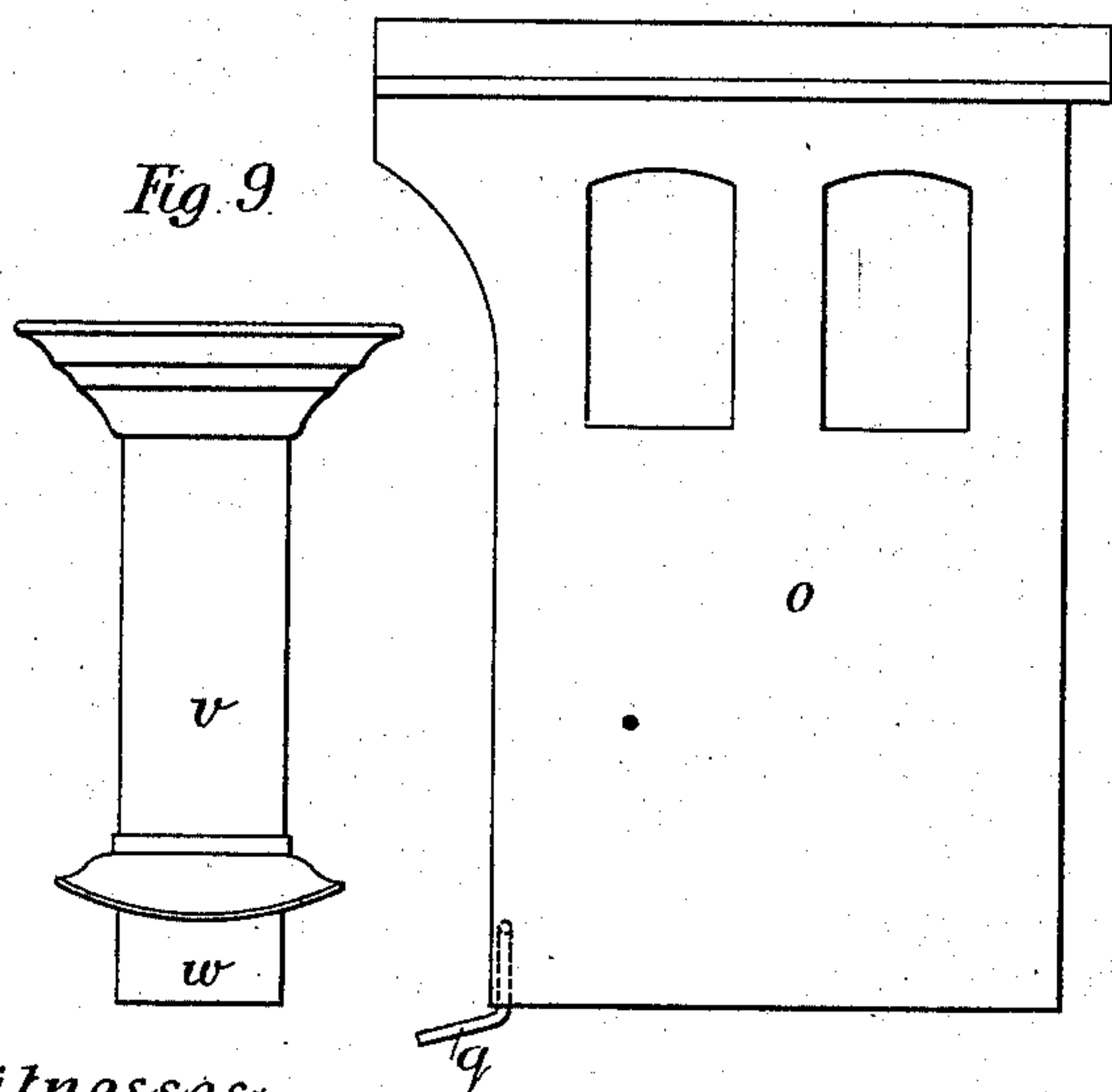


Fig. 7.

Fig. 8.

Fig. 9.



Witnesses:

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Inventor:

G. F. Lutticke

UNITED STATES PATENT OFFICE.

GEORGE FREDERICK LUTTICKE, OF LONDON, ENGLAND.

TOY LOCOMOTIVE.

SPECIFICATION forming part of Letters Patent No. 409,991, dated August 27, 1889.

Application filed January 17, 1889. Serial No. 296,595. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FREDERICK LUTTICKE, a subject of the Queen of Great Britain, residing at London, England, have
5 invented new and useful Improvements in Toy Locomotives, of which the following is a specification.

My invention relates to toy locomotives driven by a suitable motor and adapted to fly
10 to pieces upon coming in contact with an obstacle or upon being suddenly stopped, so as to resemble the bursting and breaking up of a real locomotive in collision, and comprises the improvements hereinafter more particularly described.

In the accompanying drawings, which form part of this specification, Figure 1 is a central longitudinal section of a toy locomotive constructed according to my invention. Fig. 2
20 is a plan of the same, partly in horizontal section. Fig. 3 is a rear end elevation. Fig. 4 is a transverse section on line A B of Fig. 2. Figs. 5 to 9 are detached views of some of the parts.

Similar letters in all the figures indicate similar parts.

a is a platform or carriage mounted upon wheels *b b b b*, and upon which the various detachable parts of the toy are fitted in the
30 manner hereinafter described. The toy is shown, by way of example, arranged to be driven by a spring *c*, coiled around the axle *d* of one pair of wheels *b b*, and having one end attached to the said axle and the other
35 end to the carriage *a*.

Upon the carriage *a*, I mount a buffer-bar *e*, sliding in a guide *f* and projecting from the front of the locomotive when the parts have been fitted together. The rear end of the
40 sliding buffer-bar *e* carries an upright *g*, provided with a clip *h*, for receiving flanges *i i* on the two parts *j j*, forming the semi-cylindrical sides of the boiler. One of these parts *j* is shown detached in elevation and edge
45 view at Figs. 5 and 6, respectively. The parts *j j* are also each formed with lugs *k k*, which are inserted in slots *l l* in the platform *a*. Springs *m m* are attached to the vertical sides of the guide *f*, and by pressing
50 against the inner sides of the parts *j j* serve to project them outward, when their flanges *i i*

are released from the clip *h* by the buffer-bar *e* being forced inward on coming in contact with an obstacle or upon being pulled. The upright *g* also carries a rod *n*, which is by the
55 same movement of the bar *e* caused to strike the engine-driver's cab *o* and throw it off the platform *a*. The cab *o* (shown detached in side and rear elevations at Figs. 7 and 8, respectively) is secured to the platform *a* by
60 means of spring-clips *p p* on the platform, and of a wire *q*, the bent ends of which enter holes *r r* in the said platform. The end of the rod *n* is crooked, as shown at *s*, for the purpose of holding a spring-hammer *t* in a
65 raised position. This hammer, when released by the sudden movement of the bar *e* and rod *n*, is intended to strike a percussion-cap placed in a pan *u*, and thereby produce a loud report at the moment of the break up of the
70 parts.

v is the chimney of the engine, which is made detachable, and is shown in elevation at Fig. 9. The bottom part *w* fits in a hole *x*
75 in the sides *j j*, and therefore falls when the sides are thrown out.

y is an eye on the bar *e*, projecting downward through a slot *z* in the platform *a*, to which eye a cord *a'* can be attached. This cord is passed through guides *b' b'* to the rear
80 of the engine, and is of sufficient length to be used for suddenly pulling back the bar *e*, instead of the bar being forced back by coming in contact with an obstacle.

Suppose the various detachable parts to
85 be disconnected in order to fit them to the carriage and the operative parts of the toy set ready for action. The rod *n*, with the upright *g* and buffer-bar *e*, are drawn back into the position shown by the dotted lines in Fig. 1,
90 the lugs *k k* of the sides *j j* are inserted in their slots *l l*, and the hammer *t* is raised into the position shown by the dotted lines in Fig. 3. The rod *n* is then moved forward so as to retain the hammer *t* in the crook *s* and the
95 flanges *i i* in the clip *h* and to project the buffer-bar *e*. A percussion-cap is placed in the pan *u*, the cab *o* is placed in its proper position in the manner hereinbefore described, and the chimney *v* is placed in the
100 hole *x*. The spring *c* is then wound up by rotating that wheel *b* which is provided with

a handle *c'* for this purpose. If, now, the engine be allowed to run and be directed so that its buffer-bar *e* shall strike against some resisting object the said bar will be forced
 5 back and simultaneously the sides *j j* and cab *o* will be thrown off, the chimney *v* will fall, and the hammer *t* will strike the percussion-cap and produce a report. It will be obvious that a similar result will be obtained
 10 if the cord *a'* be held so as to suddenly check the progress of the engine and draw back the rod *n*.

Having now particularly described and ascertained the nature of my said invention
 15 and in what manner the same is to be performed, I declare that what I claim is—

1. A toy locomotive built up of several separate pieces, combined with a buffer-bar carrying an upright provided with a clip, detachable sides of a boiler held to place by
 20 said clip, a rod carried by the buffer-bar and serving as a striker, and whereby, when the locomotive is advancing and the buffer strikes an object or is pulled back, the cab shall be
 25 thrown off and the said boiler sides released, as set forth.

2. In a self-propelling toy locomotive, the combination, with a boiler composed of detachable sections or sides *j*, held temporarily
 30 to place both at top and bottom, of springs *m*, bearing against the inner sides of such boiler-sections, a slide-rod or buffer serving,

when moved lengthwise, to release said sides at their tops, and the springs then serving to force the sides outward and to throw them
 35 off, substantially as set forth.

3. In a self-propelling toy locomotive, the combination of a buffer-bar, a detachable cab *o* and its detaining-wires *q*, a platform having the clip *p* and holes *r*, and the slide-rod *n*,
 40 connected with the buffer-bar and adapted to strike the cab and throw it off the platform upon the sudden striking or pulling of said bar, all as shown and described.

4. In a toy locomotive, a clip *h*, connected
 45 with a sliding buffer-bar and serving to clasp and retain the bent flanges *i* of detachable sides or other parts of the locomotive, in combination with springs *m*, the said parts being
 50 adapted to fly apart by the action of such spring upon the buffer-bar being suddenly struck or pulled, substantially as set forth.

5. In a toy locomotive, the combination, with a buffer-bar, of a crook or catch on a rod connected with such bar, and a spring-
 55 hammer retained by the crook or catch, but adapted to be released by the action of the buffer-bar when the latter is suddenly struck or pulled, substantially as set forth.

GEORGE FREDERICK LUTTICKE.

Witnesses:

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