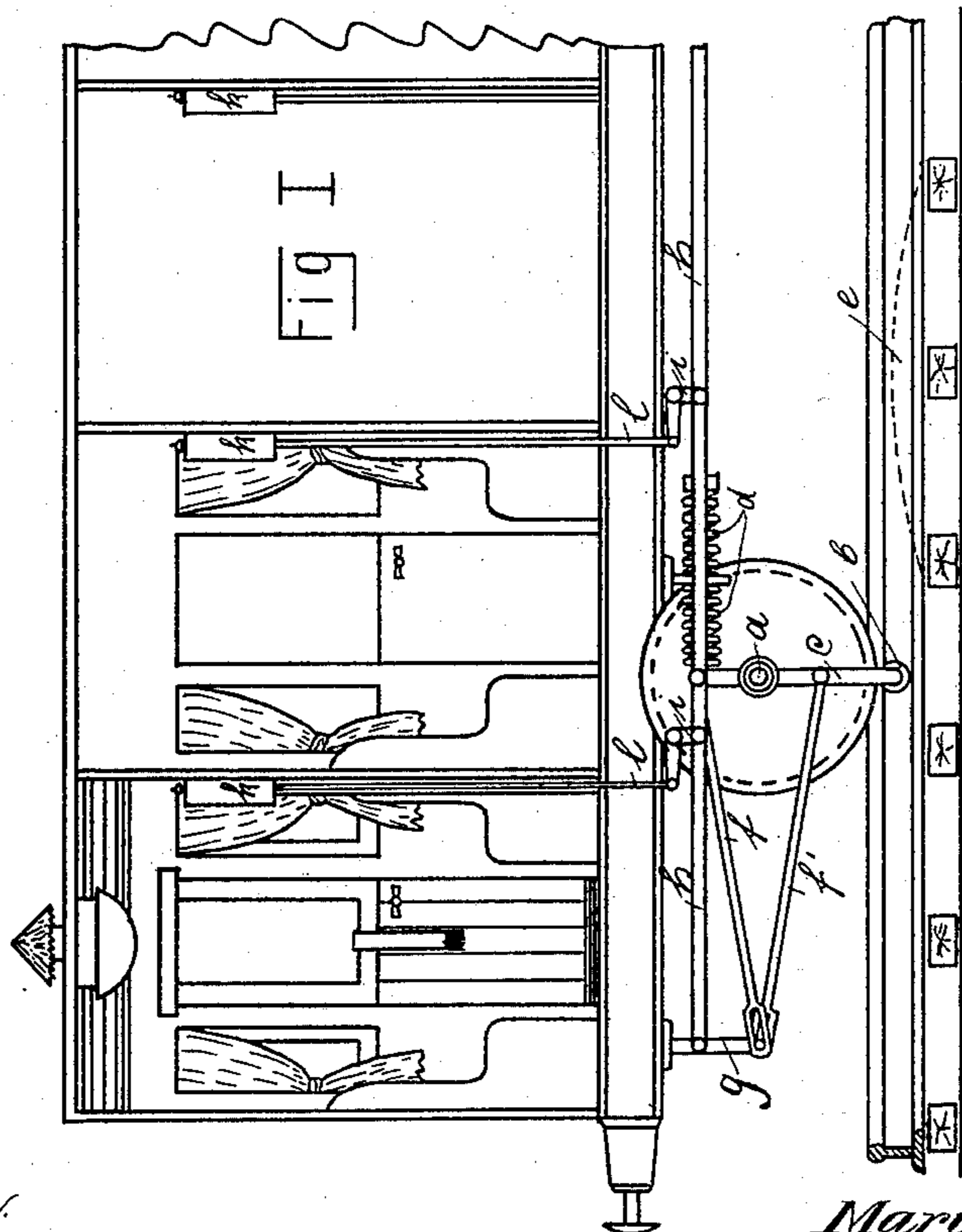
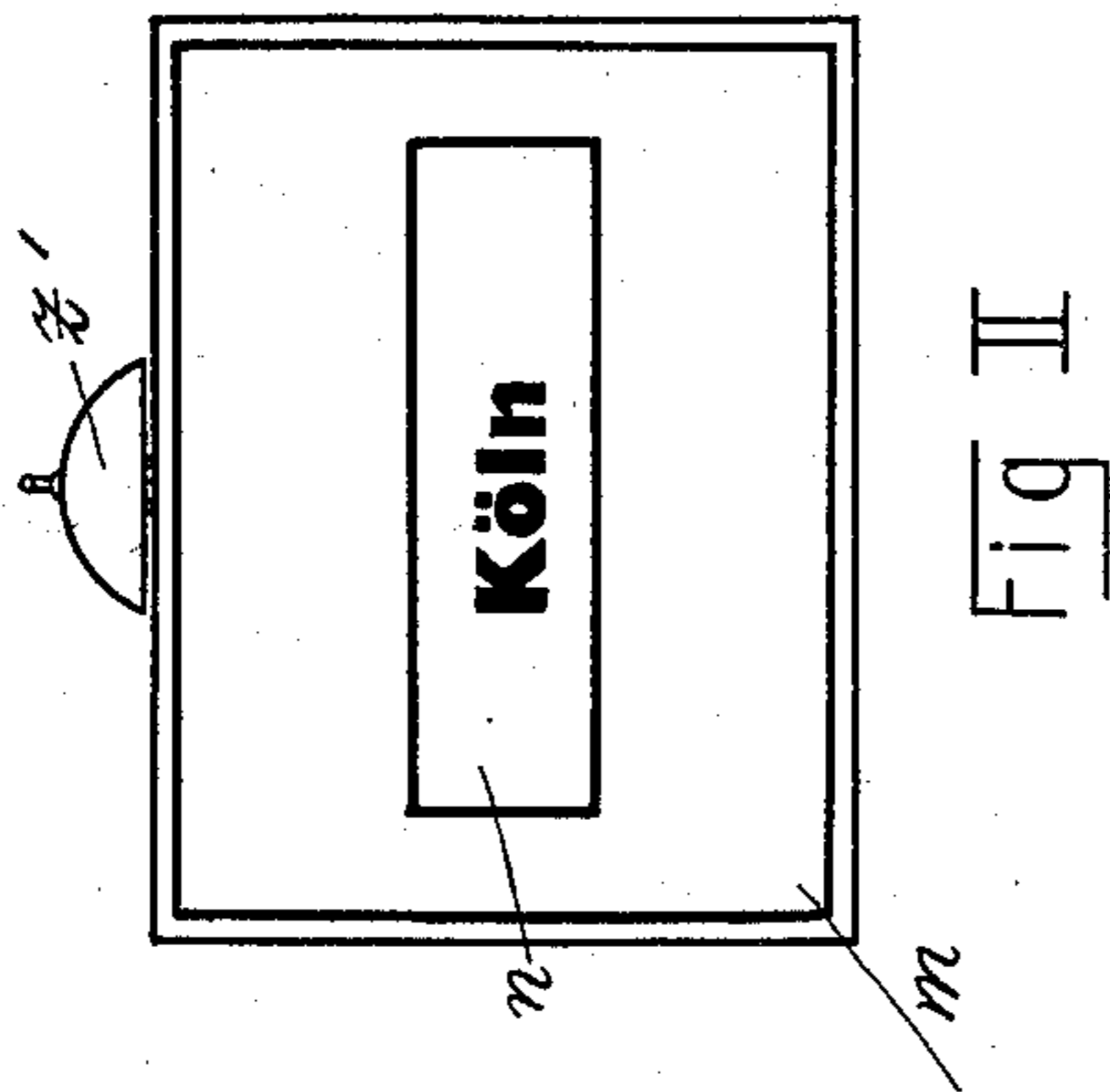
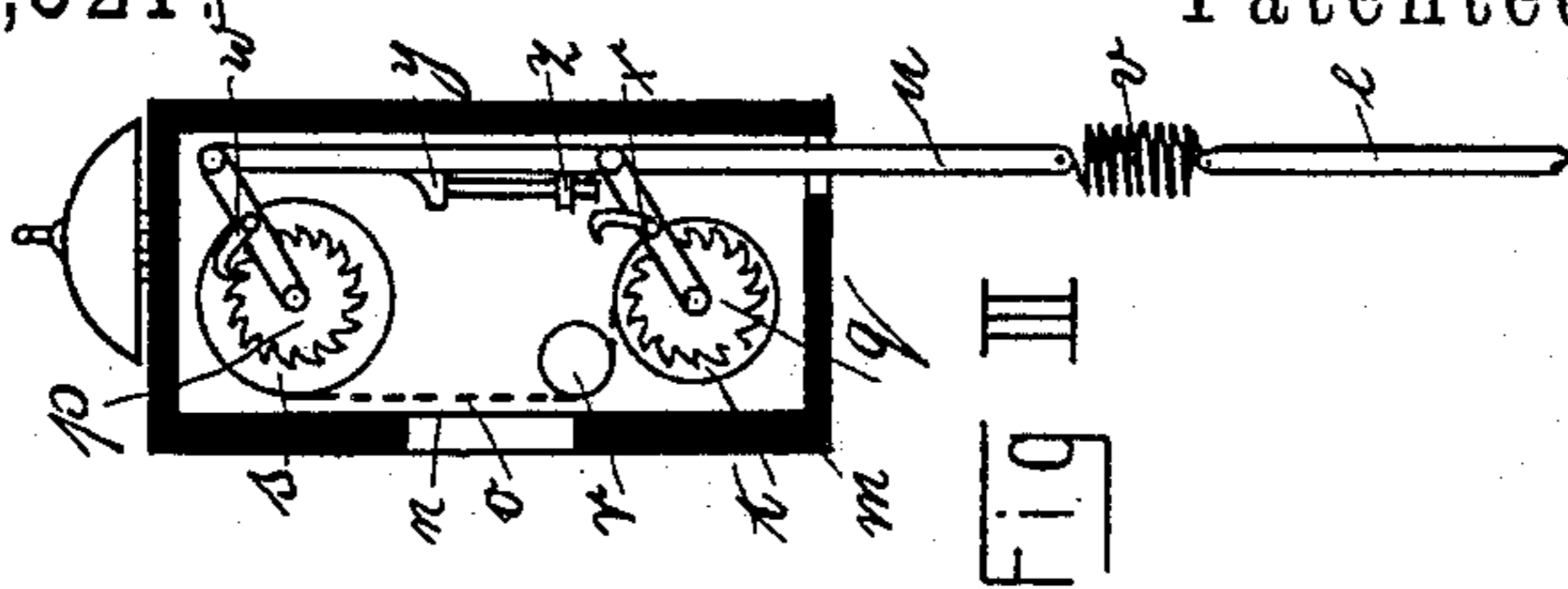


(No Model.)

M. VAN LOOK.
STATION INDICATOR.

No. 596,521

Patented Jan. 4, 1898.



Witnesses:
G. L. Edwards Jr.
Fred. J. Dole.

Inventor:
Martin van Look.
By his Attorney,
F. H. Richards

UNITED STATES PATENT OFFICE.

MARTIN VAN LOOK, OF COLOGNE, GERMANY.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 596,521, dated January 4, 1898.

Application filed January 11, 1897. Serial No. 618,787. (No model.)

To all whom it may concern:

Be it known that I, MARTIN VAN LOOK, a subject of the King of Prussia, Emperor of Germany, and a resident of Cologne, in Rhenish Prussia, Germany, have invented a certain new and useful Improved Automatic Station-Indicator, of which the following is a full, clear, and exact description.

The present invention relates to devices for automatically indicating the next station or stopping-place in railway-carriages; and it consists of the details of construction hereinafter set forth, and particularly pointed out in the claims, and in order to render the present specification more easily intelligible reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a section through a general arrangement of a railway-carriage fitted with the station-indicator; Fig. 2, a front elevation of the device within the carriage for indicating the station, and Fig. 3 a vertical section through the casing shown at Fig. 2.

A vertical push-lever *c*, provided with a roller *b* at its lower end, is pivotally mounted on the carriage-axle *a*. A double spring *d*, which engages on the free end of the push-lever *c*, returns the latter into its vertical position after it has encountered a curved rail *e*, arranged in front of and behind the station between the rails of the track. The oscillation of the push-lever *c* is conveyed by means of two links *f f'* and a one-armed lever *g* to a bar *h*, arranged under the carriage, which bar in turn operates a bell-crank lever *i* and link *l*, leading to the indicators *k*.

The arrangement of the double links *f f'*, having slotted ends to engage with a pin at the end of the lever *g*, has the effect that the direction of force exerted on the bar *h* will remain the same immaterially whether the push-lever swings to the right or to the left. Thus one lever only will be required both for the up and down journey.

The indicating apparatus shown at Figs. 2 and 3 is constructed in the following manner: A wood box is provided with a glass disk or plate *n* on its front side, behind which the name of the station, which is marked on a band *o*, is exhibited, and between the separate station names there appears either the

same advertisement or announcement or changing or only arbitrarily-changing advertisements, by means of which latter arrangement the cost of fixing and maintaining the apparatus will not only be covered, but probably a considerable excess of receipts will be obtained. The band is wound right and left on rollers *s* and *t*, a guide-roller *r* being inserted or provided. Ratchet-wheels *p* and *q*, movable in the same direction, are mounted or attached to the rollers *s* and *t*. The link or draw-bar *l* passing through the floor of the carriage, acts on the radius-rods and on the pawls *w* and *x*, carried thereby, by means of bar *u*, spiral springs *v* being inserted in order to equalize or counteract too strong a pull, by which means, according as the upper or under pawl is engaged, the band travels from below upward, or vice versa.

At the terminal or main stations the workmen cleaning the carriages need only reverse the pawl mechanism in order to adjust the apparatus for the return journey. For the purpose of adjusting the stroke a projection *y* is provided on the rod *u*, which encounters the adjustable projection *z*.

A bell *z'*, mounted on the box, indicates each time when the apparatus comes into action, said bell being connected by any suitable means to the pawl-operating levers, said means not being shown, as they form no part of the present invention.

I claim as my invention—

1. The combination of a station-indicating device within the compartment, a pawl mechanism to operate the same, a pawl-operating lever extending downward through the floor of the carriage, a lever-arm *c* pivoted on the car-axle and a swinging lever *g* suspended at the end of the car, links *f f'* extending from the lever *c* from points above and below its pivot respectively to the end of the lever *g* and engaging said lever end by means of slots and means for swinging the lever *c* at predetermined times and means for returning the same to its vertical position as also for connecting said lever *g* to the vertically-arranged pawl-operating rod so as to reciprocate the same vertically when the lever *c* is swung in the manner and for the purpose substantially as described.

2. The combination of a station-indicating

device arranged within the compartment, consisting of a band on which the names of the stations are marked, rolls on which said band is wound as specified, ratchet-wheels *p q* fast to each of the band-carrying rolls, rock-arms supported on the roll-axes and having spring-pressed pawls to engage said ratchet-wheels, a vertical rod *u* to connect said rock-arms, a vertical rod *l* spring-connected to *u* and extending downwardly through the floor of the car, a downwardly-extending lever *c* pivoted on the car-axle and means fixed between the rails of the track to swing said lever, and means for connecting said lever to the vertically-reciprocating pawl-operating lever so as to operate the same in one direction, immaterially in which direction the lever *c* is swung substantially as described.

3. The combination of a station-indicating device in the compartment, comprising a band, suitable rolls to support said band as specified and a vertical pawl-operating rod, ratchet-wheels on said band-supporting rolls and pawls to engage said ratchets, rock-arms extending from the axes of said rolls and carrying said pawls, a stop-bar *y* arranged on said vertical bar and adapted to engage with its lower end against one of the rock-arms, when the said rod is operated downward, a vertical lever-arm *c* suspended from the car-axle and means between the tracks for swinging the same, means for communicating said movement of the lever *c* to the vertically-

reciprocative pawl-operating rod in the manner and for the purpose substantially as described. 35

4. The combination of a station-indicating device mounted in the compartment and consisting of a band *o* having marked thereon the names of the stations, rolls *s t* on which said band is wound right and left and a guide-roll *r* as specified, ratchet-wheels fast on each of the rolls *s* and *t*, rock-arms pivoted to said roll-axes and having pawls *w* and *x* to engage said ratchet-wheels, a vertical lever or bar *u* to couple and rock said rock-arms, a lever *c* suspended from the car-axle and links *f f'* attached thereto one above and one below its point of suspension, a lever *g* suspended at the end of the car and having pin at its lower end, slotted ends to said links *f f'* to engage said pin, a horizontal reciprocative lever *h* pivoted to said lever *g*, a vertically-reciprocative lever *l* spring-connected to the lever *u*, and a bell-crank lever *i* to connect said lever *l* with *h* and springs *d* to return said lever *c* to its vertical position as also a rail on the track to engage the lower end of lever *c* and operate the same substantially as described. 40 45 50 55

In witness whereof I have hereunto set my hand in presence of two witnesses. 60

MARTIN VAN LOOK.

Witnesses:

SOPHIE NAGEL,
W. H. MADDEN.