

No. 762,560.

PATENTED JUNE 14, 1904.

G. E. SCHMIDT.

DEVICE FOR OPENING THE COVERS OF BOXES OR THE LIKE.

APPLICATION FILED JULY 15, 1903.

NO MODEL.

Fig. 1.

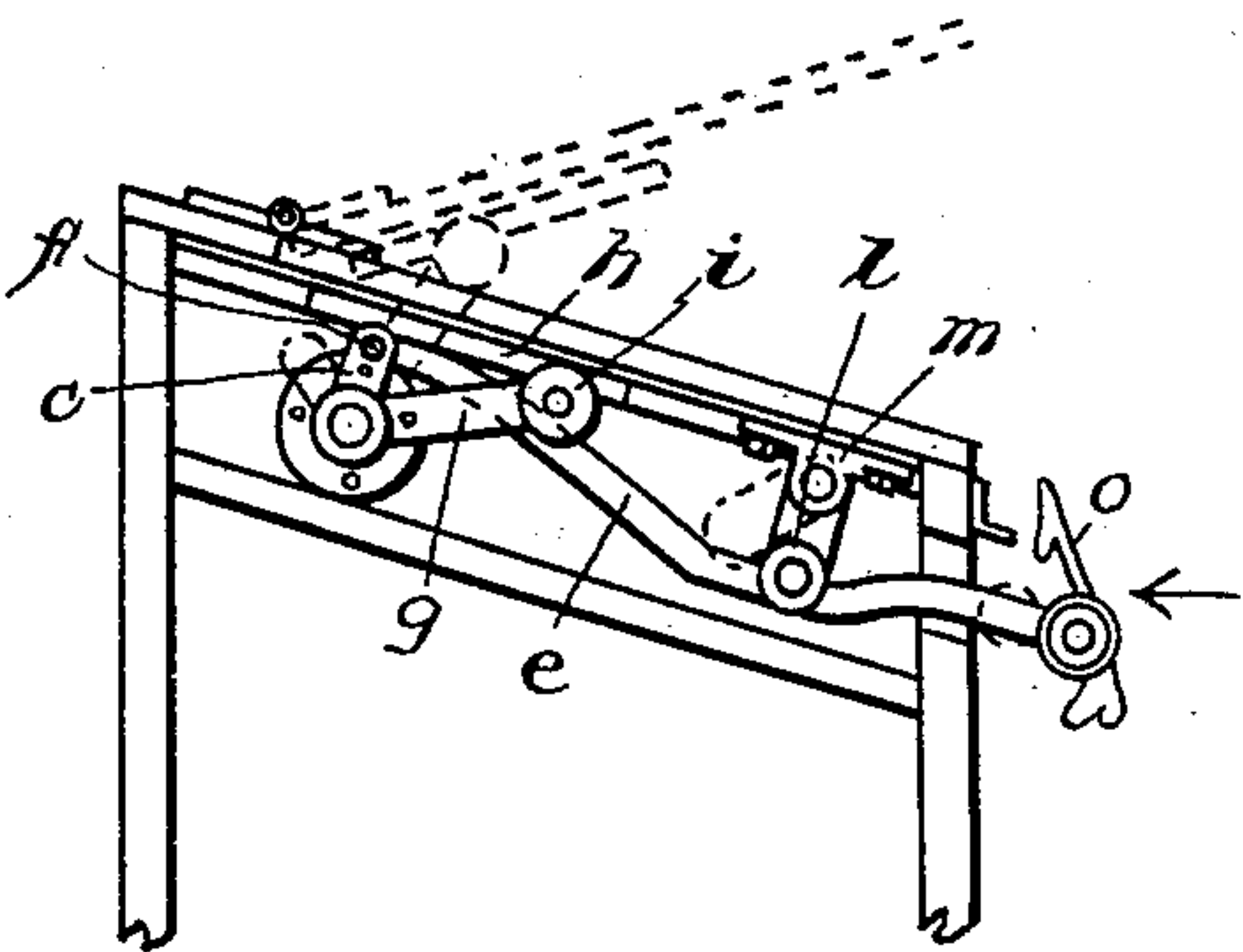


Fig. 3.

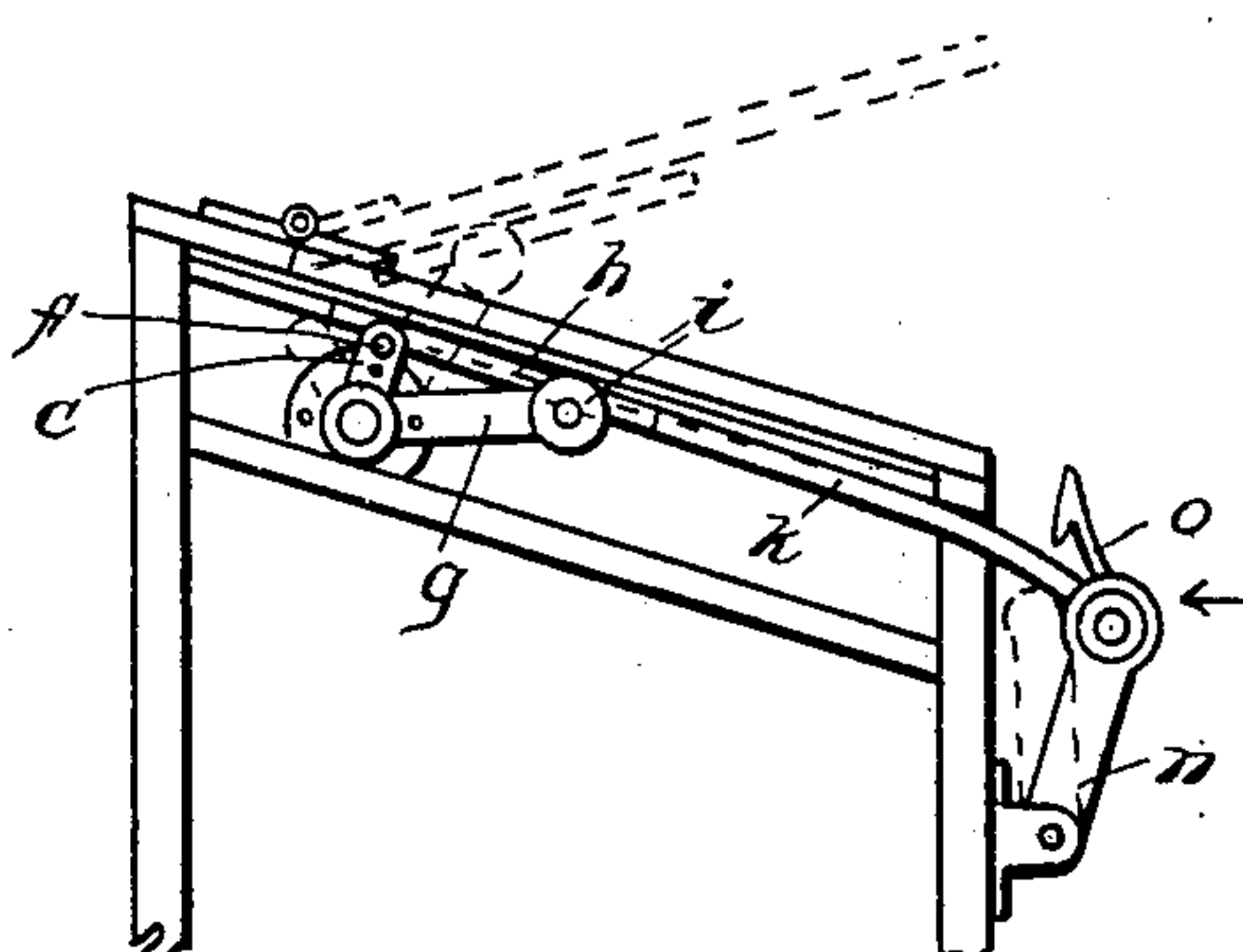


Fig. 2.

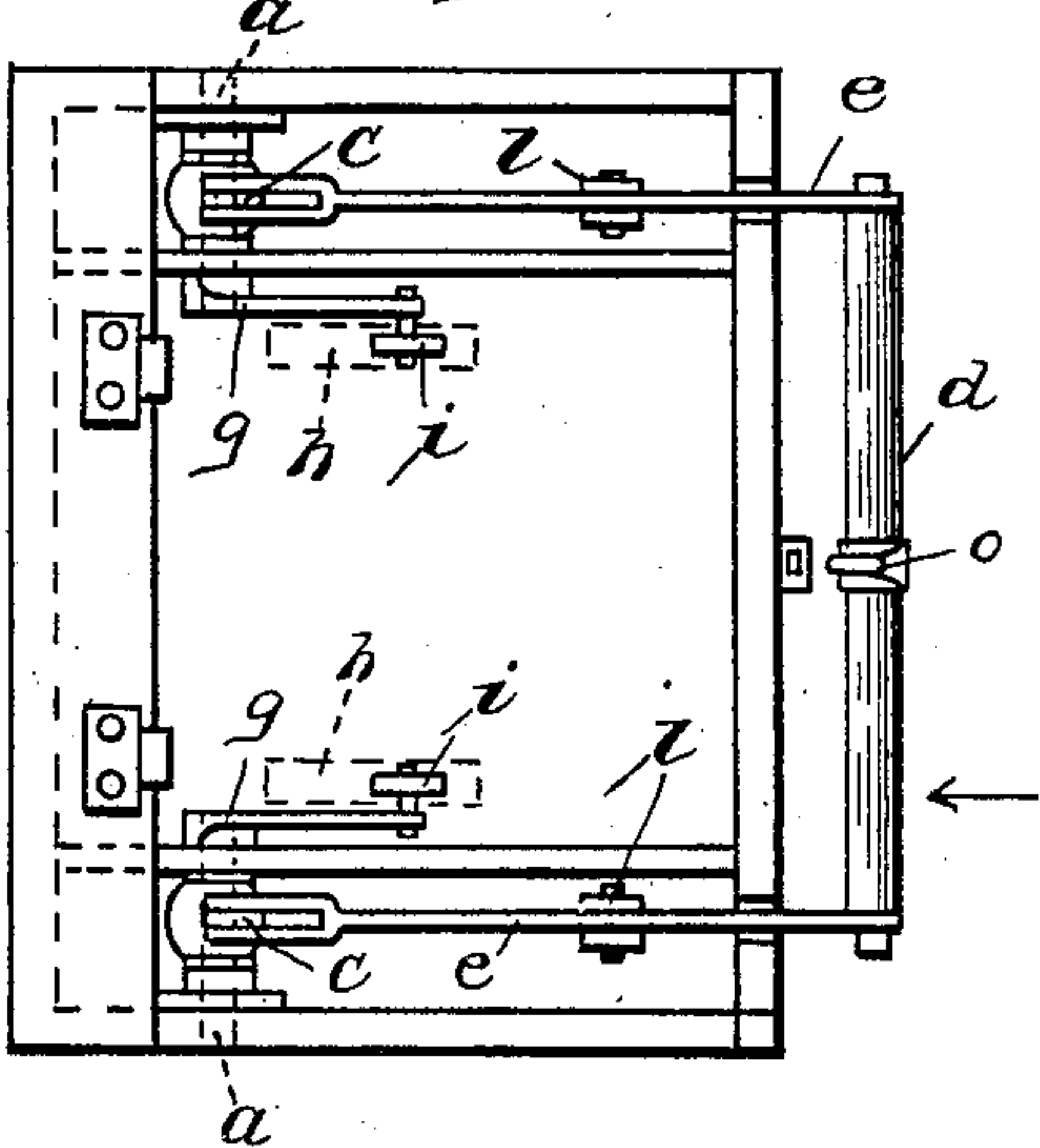


Fig. 4.

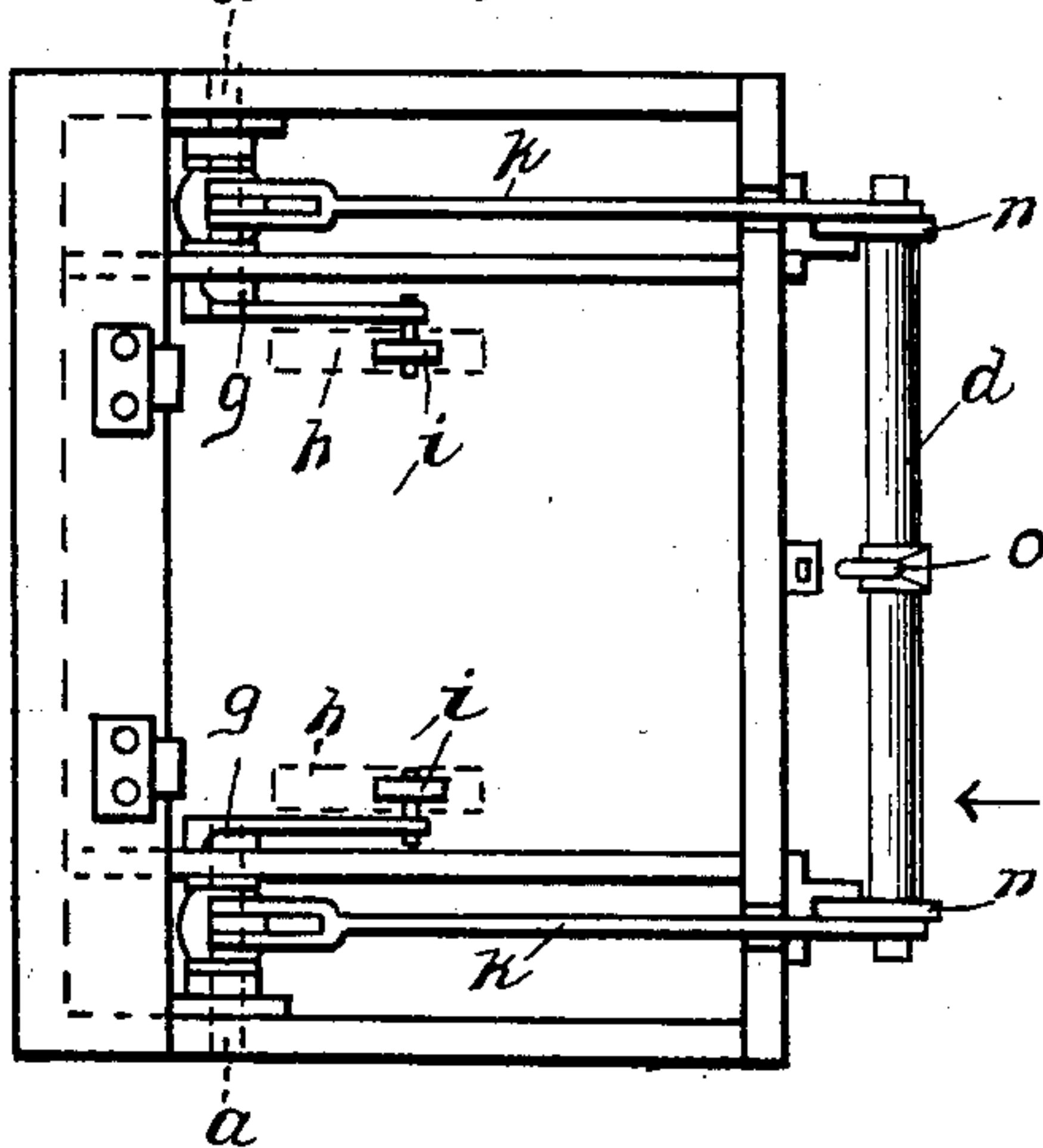
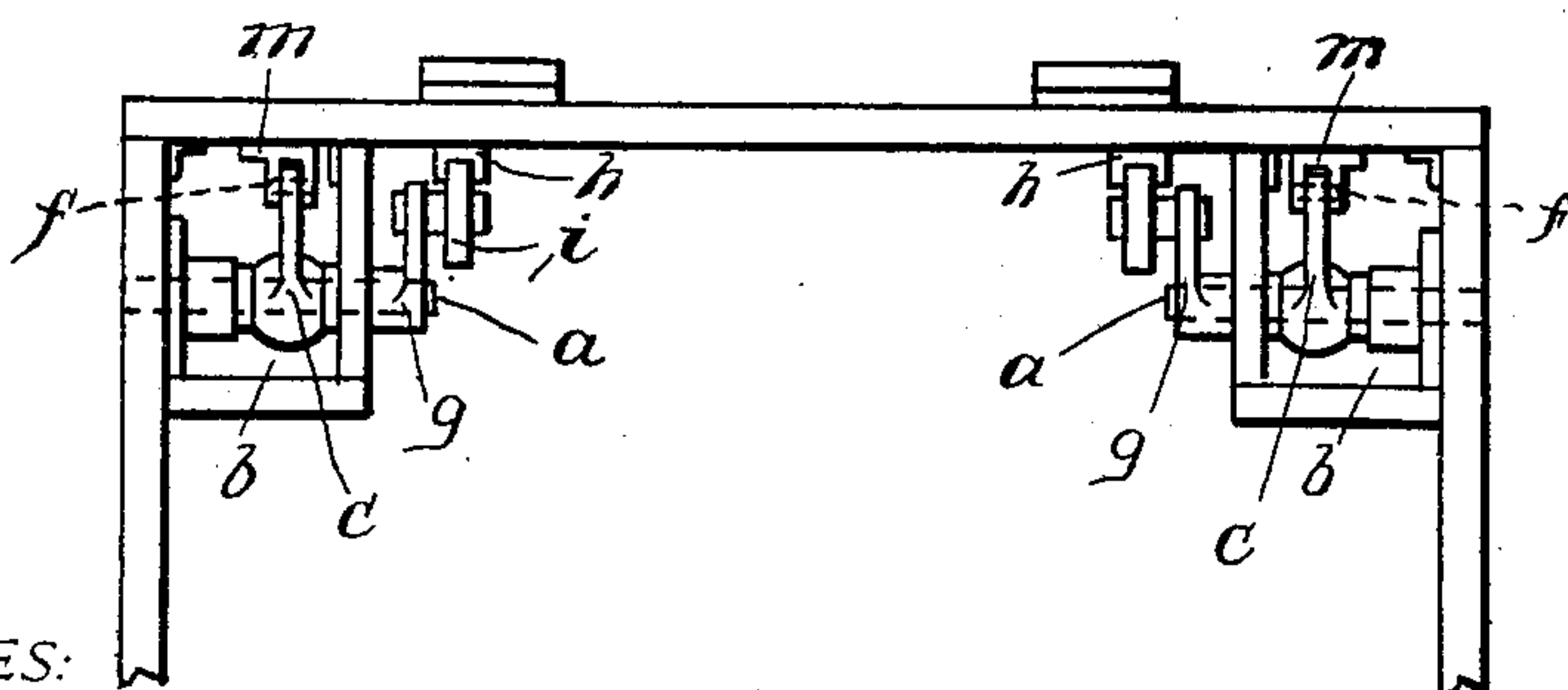


Fig. 5.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

GUSTAV EDUARD SCHMIDT, OF ELBERFELD, GERMANY.

## DEVICE FOR OPENING THE COVERS OF BOXES OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 762,560, dated June 14, 1904.

Application filed July 15, 1903. Serial No. 165,690. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAV EDUARD SCHMIDT, of Elberfeld, Germany, have invented new and useful Improvements in Devices for Opening the Covers of Boxes or the Like; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to a device for opening the hinged covers of boxes or other receptacles by means of levers acting upon the under side of the cover and being secured in suitable bearings below the cover.

The new device is intended to be used everywhere when the cover has its edges flush with the sides of the box, so that it could not be easily gripped by the hand. To this end the levers acting on the under side of the hinged cover are connected with links projecting through the front wall of the box, where they are connected by a cross-bar which is used as a handle to be pushed forward, so that the levers raise the cover. A hook or catch on said bar can engage a loop secured to the box in order to maintain the cover in its elevated position.

In the accompanying drawings, illustrating the invention, Figure 1 shows the device on a box with hinged cover in a vertical section, indicating by dotted lines the parts when the cover is lifted. Fig. 2 is a plan view. Figs. 3 and 4 are corresponding views of a slightly modified form of the invention. Fig. 5 is a vertical longitudinal section through the device on an enlarged scale.

The mechanism for lifting lids or covers of boxes, &c., is for the greater part inclosed in lateral boxes *b b*, arranged at the upper corners of the two sides of a receptacle having a hinged cover. Cross-pins or stub-shafts *a a* are secured in the boxes *b b*, and arms *c c* are made to turn on the same within the boxes. The end of each arm *c c* is pivotally connected with a rod *e* by means of a bolt *f*, and each rod *e* projects through an opening in the front of the receptacle, where a cross-bar *d* is securely fastened to the end, thus connecting the links *e e*. The hub of each arm *c* is se-

curely connected with the hub of an arm *g*, this latter arm being outside of the box *b* and carrying at its end a roller *i*, which is guided in a trough-shaped guide *h*, secured to the cover. The links *e e* in Figs. 1 and 2 are supported by short connecting-bars *l l*, pivoted in a bearing *m* in the box *b*.

In the modifications Figs. 3 and 4 the outer ends of the links *h h* are connected to swinging bars *n n*, the lower ends of which are fulcrumed in bearings on the front side of the receptacle.

*o* is a hook adapted to turn on the bar *d*, preferably in the middle.

In pushing the bar *d* toward the receptacle the parts take the position indicated by dotted lines, and the rollers *i i*, running in their guides *h*, will lift the cover into its elevated position. The hook is then turned into engagement with a loop or staple secured to the front side of the receptacle, and thus the cover is maintained in its elevated position.

It is evident that the device can be used for covers being in a horizontal or in a vertical position and that it may be applied below or above the hinged cover or other swinging part to be opened without departing from the nature of my invention.

I claim—

1. A device for lifting lids or covers of receptacles comprising a bar *d*, and links *e, e* forming a yoke therewith, pivotally connected to arms *c, c*, on a stub-shaft or bolt being integral with arms *g, g*, carrying rollers *i* in the free ends, traveling in guides *h*, secured to the under side of the cover.

2. A device for lifting lids or covers of receptacles comprising a bar *d*, and links *e, e*, forming a yoke pivotally connected to arms *c, c*, on a stub-shaft or bolt being integral with arms *g, g*, carrying rollers *i*, in the free ends, traveling in guides *h* secured to the under side of the cover the bar *d* being provided with a hook *o* adapted to engage an eye or staple on the front wall of the receptacle, substantially as described and for the purpose set forth.

3. A device for lifting lids or covers of receptacles comprising a bar *d* and links *e, e*, forming a yoke pivotally connected with their



rear ends to arms *c, c*, on a stub-shaft or bolt being integral with arms *g, g*, carrying rollers *i* in the free ends, traveling in guides *h*, secured to the under side of the cover, the  
5 front part of said links being supported by bars, which turn with one end on a bolt secured to the box, being pivotally connected

with the other end to the links *e e*, substantially as described.

In testimony whereof I affix my signature. 10  
GUSTAV EDUARD SCHMIDT.

In presence of—

OTTO KÖNIG,  
J. A. RITTERSHAUS.