

(No Model.)

G. HENKEL & G. SCHELD.

SWITCH AND TROLLEY FOR OVERHEAD TRAVELING APPARATUS.

No. 583,704.

Patented June 1, 1897.

Fig. 1.

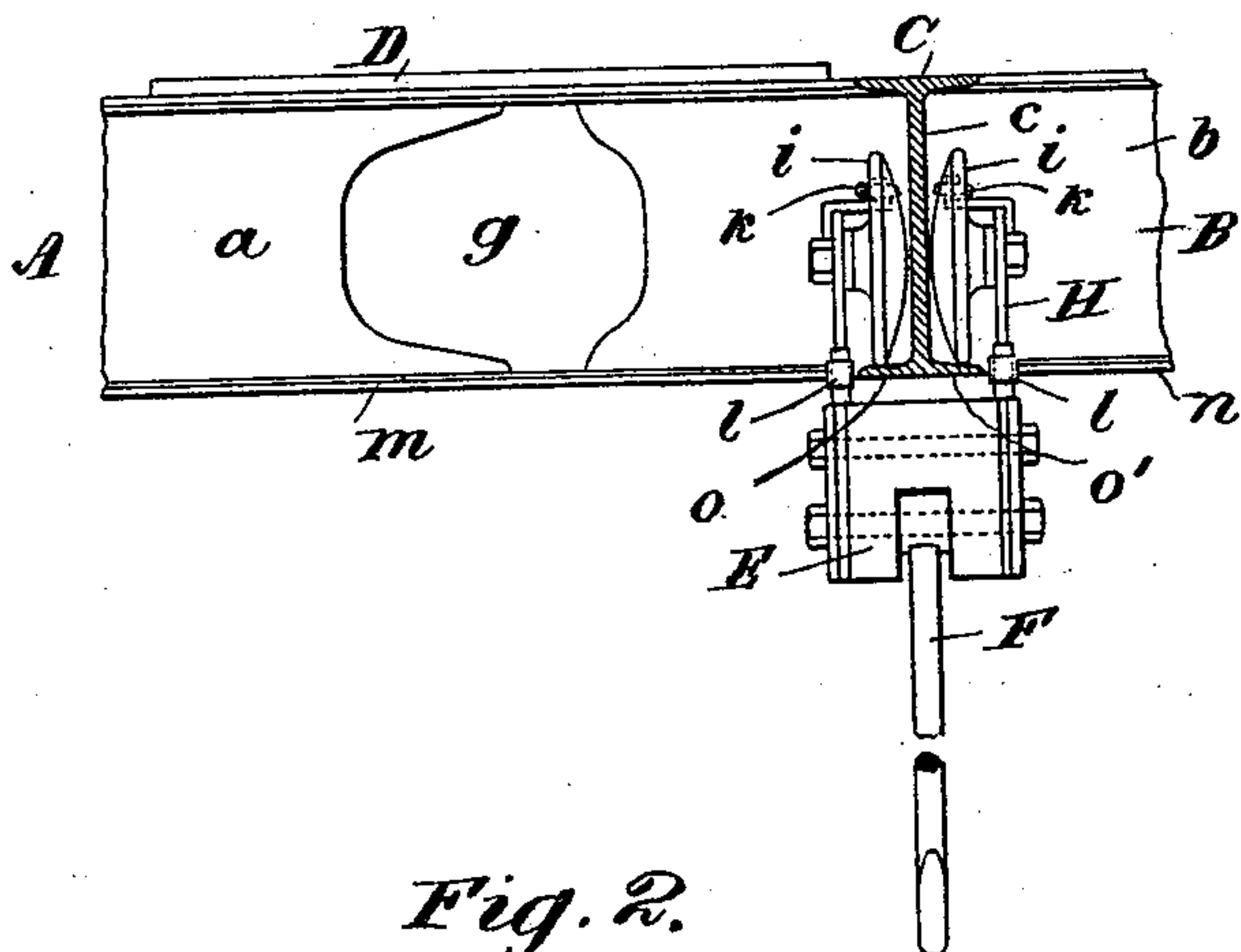


Fig. 3.

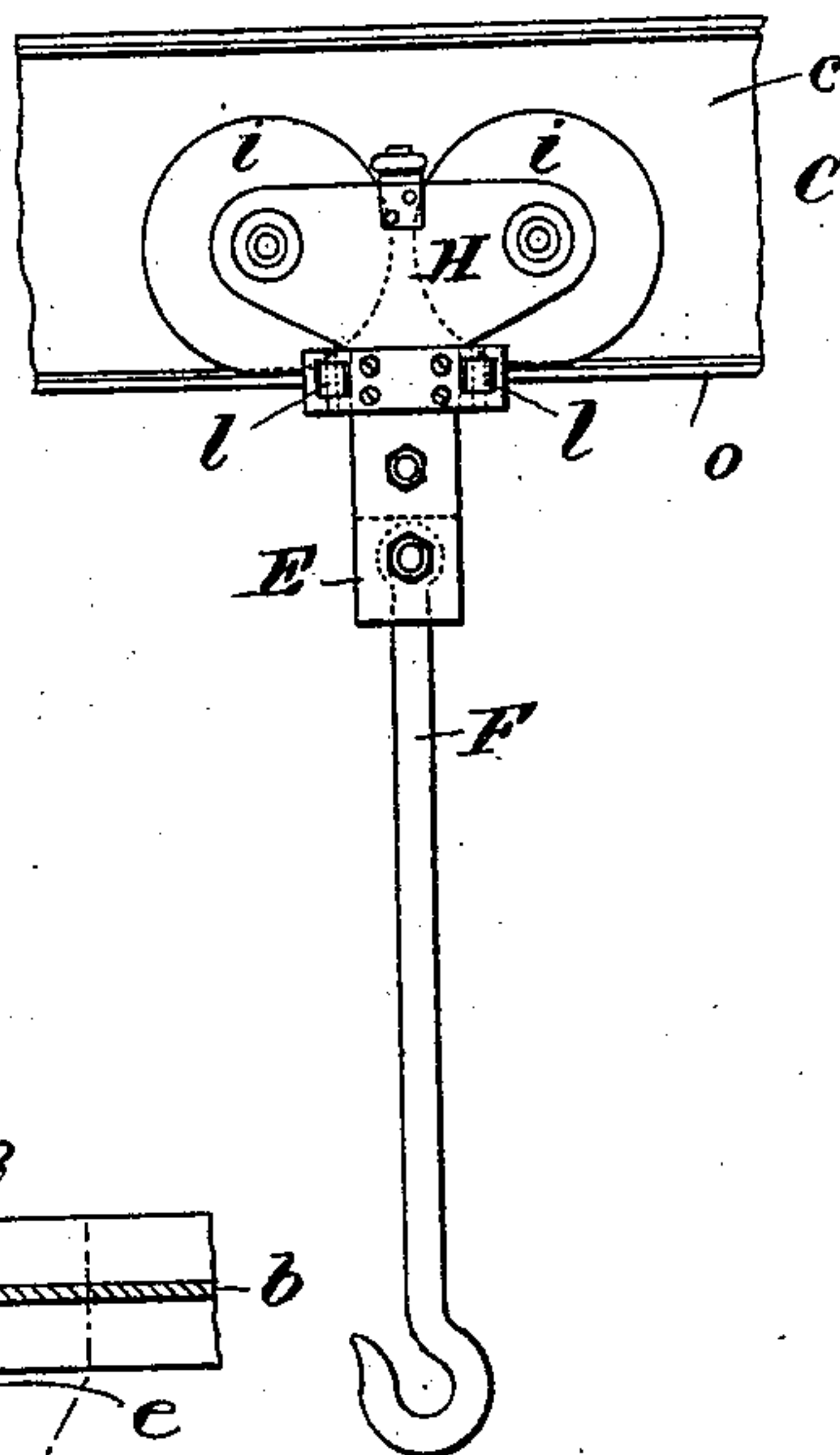


Fig. 2.

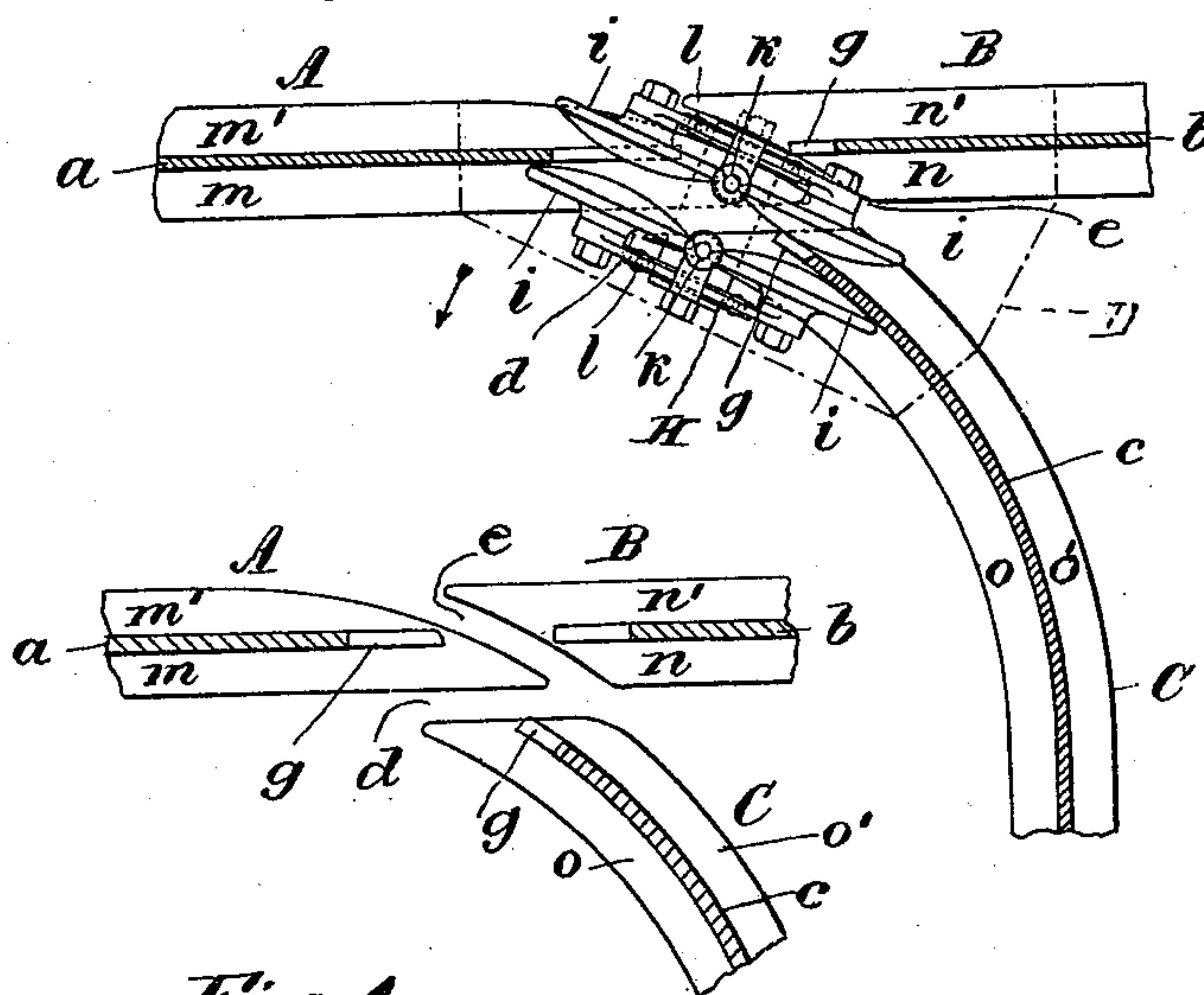


Fig. 4.

WITNESSES:

WITNESSES:
Eugenie A. Persides.
S. W. A. Eisenbroun.

INVENTORS:

Gustav Heukel,
Gottfried Scheld

BY

Abendk. 1

ATTORNEY

UNITED STATES PATENT OFFICE.

GUSTAV HENKEL AND GOTTFRIED SCHELD, OF CASSEL, GERMANY.

SWITCH AND TROLLEY FOR OVERHEAD TRAVELING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 583,704, dated June 1, 1897.

Application filed November 7, 1895. Serial No. 568,169. (No model.) Patented in Austria October 12, 1890, No. 44/5,432; in England May 30, 1894, No. 10,502, and in Hungary June 12, 1894, No. 587.

To all whom it may concern:

Be it known that we, GUSTAV HENKEL and GOTTFRIED SCHELD, subjects of the German Emperor, residing at Cassel, Germany, have invented certain new and useful Improvements in Switches and Trolleys for Overhead Traveling Apparatus, (for which Letters Patent have been obtained in Austria, No. 44/5,432, dated October 12, 1894; in Great Britain, No. 10,502, dated May 30, 1894, and in Hungary No. 587, dated June 12, 1894;) and we do hereby declare the following to be a clear and exact description of the invention.

Our invention has reference to improvements in switches and trolleys for overhead traveling apparatus, and has for its object to avoid the employment of movable parts in the switches and to obtain smooth running and durability.

To this end our invention consists, essentially, in an overhead-trolley switch composed of meeting webbed and flanged rails arranged with intervening spaces between the flanges at their points of intersection and having transverse passages in the adjacent webs, combined with a trolley-carriage having its sides adapted to pass through the spaces between the meeting flanges of the rails and provided with wheels adapted to run upon the flanges, and a suspension device connected with said carriage.

The nature of our invention will be best understood when described in connection with the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of an overhead traveling apparatus embodying our invention. Fig. 2 is a sectional plan. Fig. 3 is a side elevation illustrating the construction of the trolley. Fig. 4 is a sectional plan of the meeting rails.

Similar letters of reference designate corresponding parts throughout the several views of the drawings.

Referring to the drawings, the letters A, B, and C designate the meeting rails, which are made substantially in the form of I-beams—that is, formed with webs *a*, *b*, and *c* and flanges *m m'*, *n n'*, and *o o'*. These rails are arranged with spaces *d* and *e* intervening between the adjacent flanges *m* and *o o'* and *m m'* and *n n'*. The webs are

also cut away at their ends to form passages or openings *g* for permitting the passage of the trolley from the main track to the side-track, or vice versa. The rails are united by a top plate D.

The trolley consists of a carriage H, in which are mounted four trolley-wheels *i*, adapted to run on the lower flanges of the track-rails and provided with inner convex and with outer plane sides. The sides of the carriage are provided with thin extensions, passing on opposite sides of the rail and connected below the rail by a block E. From said block E is suspended pivotally a hook or other suitable suspension device F. Suitable guide-rolls *l* are secured in the sides of the carriage, which are adapted to engage with the edges of the flanges, and also adapted to pass through the space *d* between the flanges *m* and *o o'* when the carriage passes the switch, or through the space *e* between the flanges *m m'* and *n n'* when the carriage rounds the switch. The carriage is also provided with side rolls *k*, adapted to engage with or to come into close proximity with the webs of the track-rails. In place of the guide-rolls suitable flat guides may be substituted.

In Fig. 1 the trolley is represented as being at the outer end of the curved side-track C, while in Fig. 2 it is shown as just passing from the main track A to the curved side-track C through the openings *g* in the webs. When the trolley is to be propelled along the main track, the hook F is pulled in the direction of the main track. When, however, the trolley is to pass onto the side-track C, the hook is drawn transversely—that is, in the direction of the arrow in Fig. 2. The convex form of the trolley-wheels *i* prevents interference when the trolley passes the switch or rounds a curve. It is of course to be understood that the trolley may have but two wheels, one being placed on each side of the webs of the track-rails.

What we claim as new is—

1. An overhead-trolley switch consisting of meeting webbed and flanged rails arranged with intervening spaces between the flanges at their points of intersection and having transverse passages in the adjacent webs, combined with a trolley-carriage having its

sides adapted to pass through the spaces between the meeting flanges of the rails and provided with wheels adapted to run upon the flanges, and a suspension device connected
5 with said carriage, substantially as described.

2. An overhead-trolley switch consisting of meeting webbed and flanged rails arranged with intervening spaces between the flanges at their points of intersection and having
10 transverse passages in the adjacent webs, combined with a trolley-carriage having its sides adapted to pass through the spaces between the meeting flanges of the rails and provided with wheels adapted to run upon the
15 flanges, guide-rolls attached to the sides of the carriage and bearing against the flanges of the rails, and a suspension device connected with said carriage below the rails, substantially as described.

20 3. An overhead-trolley switch consisting of meeting webbed and flanged rails arranged

with intervening spaces between the flanges at their points of intersection and having transverse passages in the adjacent webs, combined with a trolley-carriage having its
25 sides adapted to pass through the spaces between the meeting flanges of the rails and provided with wheels adapted to run upon the flanges, guide-rolls attached to the trolley and bearing respectively against the flanges and
30 against the webs of the rails, and a suspension device connected with said carriage, substantially as described.

In testimony whereof we have affixed our signatures in presence of two subscribing witnesses. 35

GUSTAV HENKEL.
GOTTFRIED SCHELD.

Witnesses:

WILH. WIENERKE,
GEORG GIESE.