

G. J. COLES.  
 AUTOMATIC COUPLING FOR RAILWAY AND OTHER VEHICLES.  
 APPLICATION FILED NOV. 5, 1907.

901,071.

Patented Oct. 13, 1908.

Fig. 1.

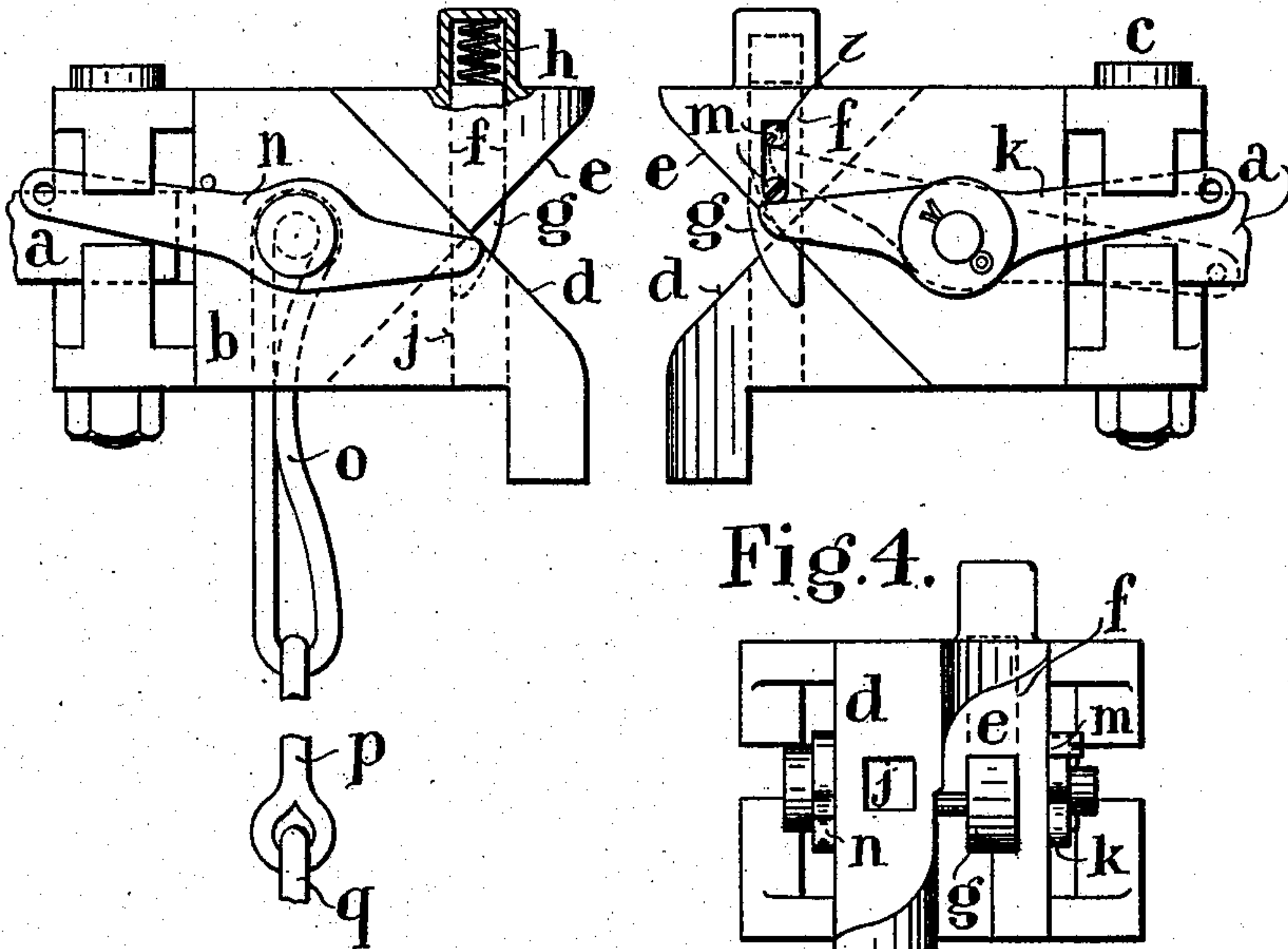


Fig. 4.

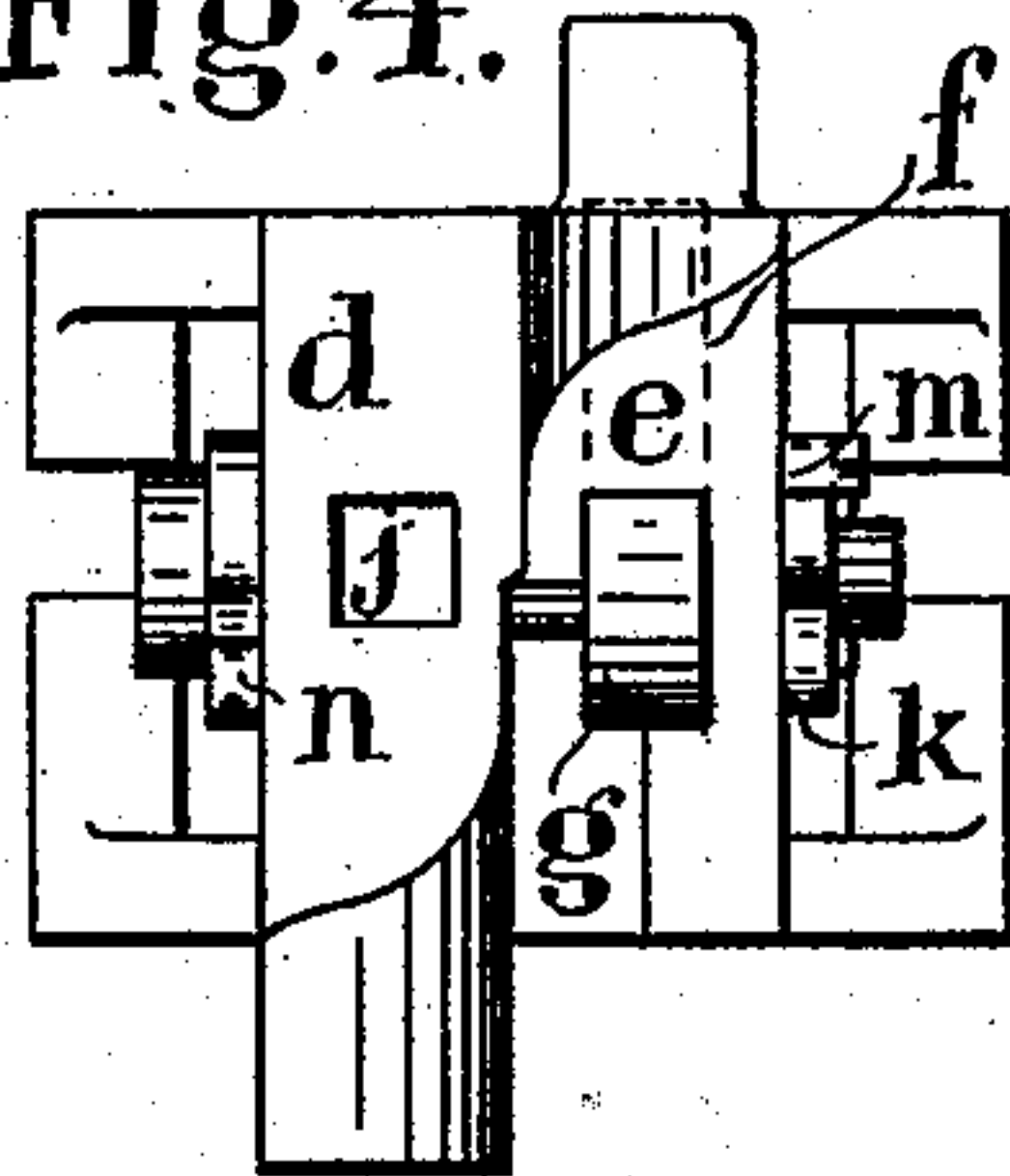


Fig. 2.

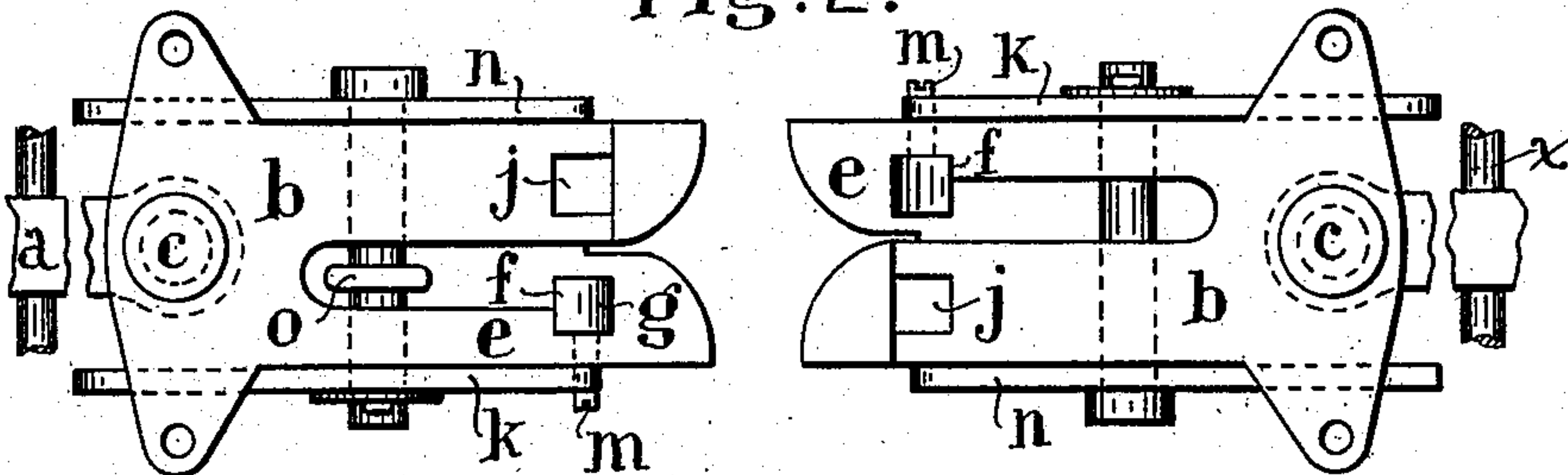
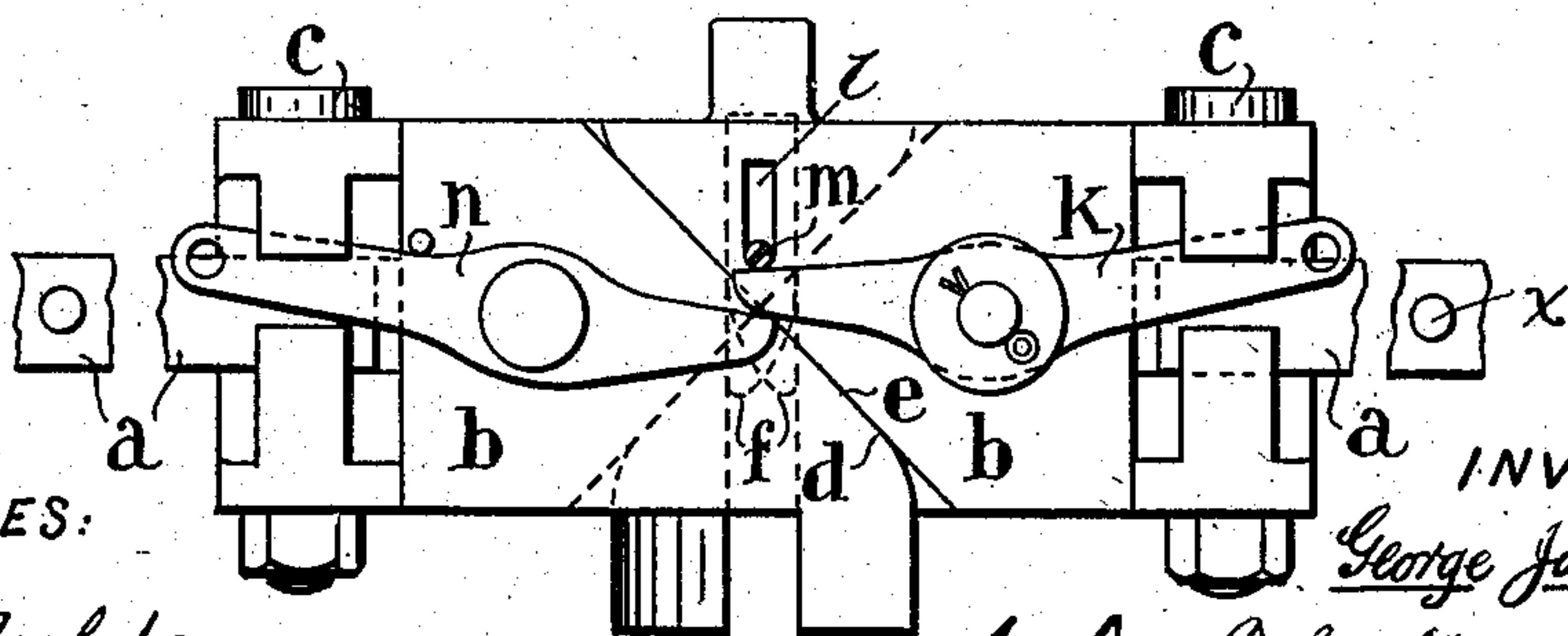


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE JAMES COLES, OF GATESHEAD, ENGLAND.

## AUTOMATIC COUPLING FOR RAILWAY AND OTHER VEHICLES.

No. 901,071.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed November 5, 1907. Serial No. 400,839.

*To all whom it may concern:*

Be it known that I, GEORGE JAMES COLES, of 57 Balmoral avenue, Gateshead, in the county of Durham, England, machinist, have invented certain new and useful Improvements in Automatic Couplings for Railway and other Vehicles, of which the following is a specification.

This invention relates to automatic couplings for railway vehicles and has for its object to provide a coupling that shall be automatic and reliable in action and easily disconnected when required.

A coupling made in accordance with this invention is applicable to that type in which a pivoted draw bar is secured to or mounted upon the vehicle body and provided with a pivoted head, said head having a pair of jaws so oppositely inclined or beveled that when the draw bars of two vehicles to be coupled come together the said faces will engage and draw or turn the bars into alignment and prevent lateral movement in regard to each other when coupled.

Referring to the drawings, in which

Figure 1 is a side elevation of two heads made in accordance with one form of this invention and pivoted to draw bars and opposing one another in a position prior to coupling; Fig. 2 is an inverted plan thereof; Fig. 3 is a side elevation of Fig. 1 showing the heads in engaged position; and Fig. 4 is an end elevation of one head.

$a a$  are draw bars pivoted at  $x$ , and having heads  $b b$  adapted to be pivoted at  $c c$  to the draw bars, the outer extremity or free end of each head is provided with two oppositely inclined or beveled faces  $d e$  adapted to engage with corresponding faces  $e d$  on another head.

$f f$  are spring-pressed bolts provided with sloped faces  $g g$ ; these bolts are adapted to be pressed against the action of the springs  $h h$  as and when said bolts come in contact with the inclined or beveled faces  $d d$ .

$j j$  are slots into which the bolts are adapted to be shot by the action of the springs as soon as the opposing heads come together.

$k k$  are pivoted levers adapted to engage pins  $m m$  on the bolts  $f f$ ;  $l l$  are slots in the heads through which the pins  $m m$  project;  $n n$  are pivoted levers adapted to engage the ends of the levers  $k k$ . The levers  $k k$  and  $n n$  on each head are respectively connected to a hand lever (not shown) suitably disposed so that bolts can be withdrawn by either hand lever.

In operation, when two opposing heads come together, the inclined faces  $d e$  and  $e d$  co-act and ride on one another, the bolts  $f f$  are pressed back against the action of the springs  $h h$  until the heads are well pressed together, the bolts then shoot into the slots  $j j$  and the draw bars are then securely locked together. To release the bars the hand lever connected to either pair of levers  $k$  and  $n$  is operated to withdraw the bolts  $f f$  from the slots  $j j$ .

If desired links  $o p q$  (Figs. 1 and 2) may be provided for coupling up two vehicles not provided with automatic couplers.

What I claim and desire to secure by Letters Patent is:—

An automatic coupling for railway and other vehicles comprising the combination of a pivoted draw bar, a head part pivoted to said draw bar, oppositely inclined faces on said head, a spring-pressed bolt in said head adapted to project through one such inclined face, said bolt being adapted to engage with a slot in a corresponding head when two heads are forced together, a pin secured to said bolt, said head part being provided with a slot through which said pin projects, a pivoted lever on said head adapted to engage said pin and a second pivoted lever on said head adapted to engage the first named pivoted lever on another head, substantially as set forth.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE JAMES COLES.

Witnesses:

G. MELVILLE CLARK,

ROBERT MILTON SPEARPOINT.