(No Model.)

# C. M. COLE.

## CAR COUPLING.

No. 459,958. Patented Sept. 22, 1891.

Fig. 1

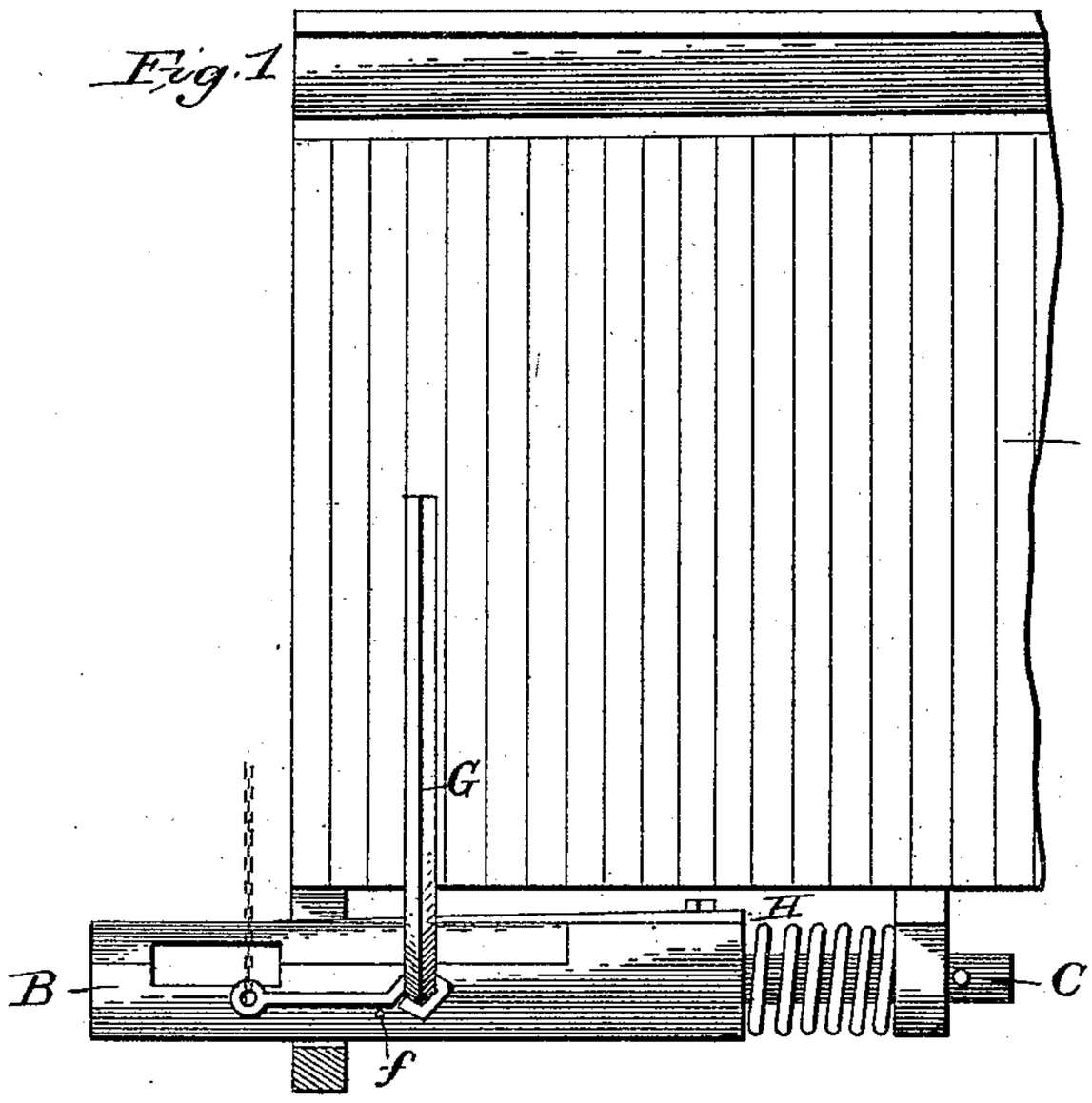



Fig. 2.

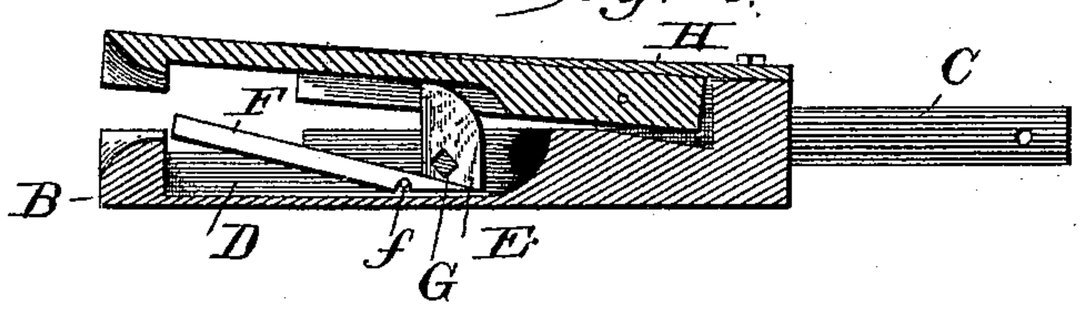
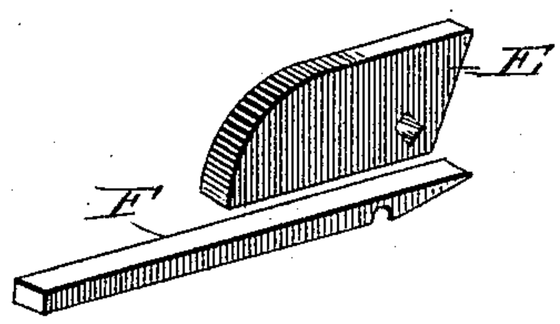



Fig. 3

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# UNITED STATES PATENT OFFICE.

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## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 459,958, dated September 22, 1891.

Application filed April 6, 1891. Serial No. 387,898. (No model.)

*To all whom it may concern:*

Be it known that I, CHESTERFIELD M. COLE, a citizen of the United States, residing at Sulphur Springs, in the county of Ohio and State of Kentucky, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in car-couplers; and it consists in the peculiar features of construction and arrangement of parts, more fully described hereinafter, and definitely pointed out in the claims.

The object of my invention is to provide a simple, effective, and conveniently-operated automatic coupler for cars. This object I attain by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate like parts in the several views, and in which—

Figure 1 is a side elevation of a car with my improvement thereon. Fig. 2 is a detail view of the coupler, partly in section; and Fig. 3 is a detail view of the cam and link-lifter.

In the drawings, A represents the car, B the draw-head, and C the draw-bar. The draw-head is divided into two parts, in which the link-opening is made, and the link is provided with a head.

The lower portion of the draw-head is provided with a longitudinal groove D, in which is located a cam E, having a circular upper edge and an inclined rear. Beneath this cam is located a link-lifter F, the forward end of which projects to a point directly back of the retaining-wall of the link-opening, while the rear end extends back to a point in the rear of the cam. This lifter is seated on a cross-pin *f*, which prevents its longitudinal movement, while its under edge is beveled, which permits of a tipping movement being given the same. The cam is pivoted on a lifting-bar G, extending through the sides of the draw-head of the outside of the car, where it is provided with a suitable crank for turning the same.

The upper part of the draw-head is hinged to the lower part, and is held in contact therewith by a flat spring H.

When the link is forced in at the link-opening, the parts separate, permitting the head thereof to pass in back of the walls of the opening, thereby being locked in place automatically. When it is desired to uncouple the cars, the handle is turned, or a chain may be applied to an offset on the handle, thereby throwing the cam, raising the upper portion of the draw-head against the tension of the spring, and bringing the rear portion of the cam in contact with the inclined portion of the link-lifter, thereby raising the forward end of the lifter, which in turn raises the link-head beyond the locking-walls of the jaw and permitting the same to be readily withdrawn.

I am aware that many minor changes in the construction and arrangement of the parts of my device may be made without in the least departing from the principle and nature of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupler, the combination, with the draw-head having a divided head, the upper portion of which is hinged to the lower portion, and having a central longitudinal channel and link-opening therein, of a cam-pin-actuating rod for the cam pivoted in the head, a link-lifter in the channel below the cam, having an inclined under rear end portion, with which the rear end of the cam engages, its front portion extending forward to a point adjacent to the locking-wall of the head, substantially as described.

2. In a car-coupler, the combination, with the draw-head having its upper portion hinged, and a spring for normally holding the same in place, of a cam for raising the upper portion, and a link-lifter pivoted below the cam, its under rear edge being beveled and with which the rear end of the cam engages and its forward portion extending back of the locking-wall of the head, whereby the upper portion of the head and the link are disengaged by single movement of the cam, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHESTERFIELD M. COLE.

Witnesses:
WM. ANDRÉ,
VAL WEITZ.