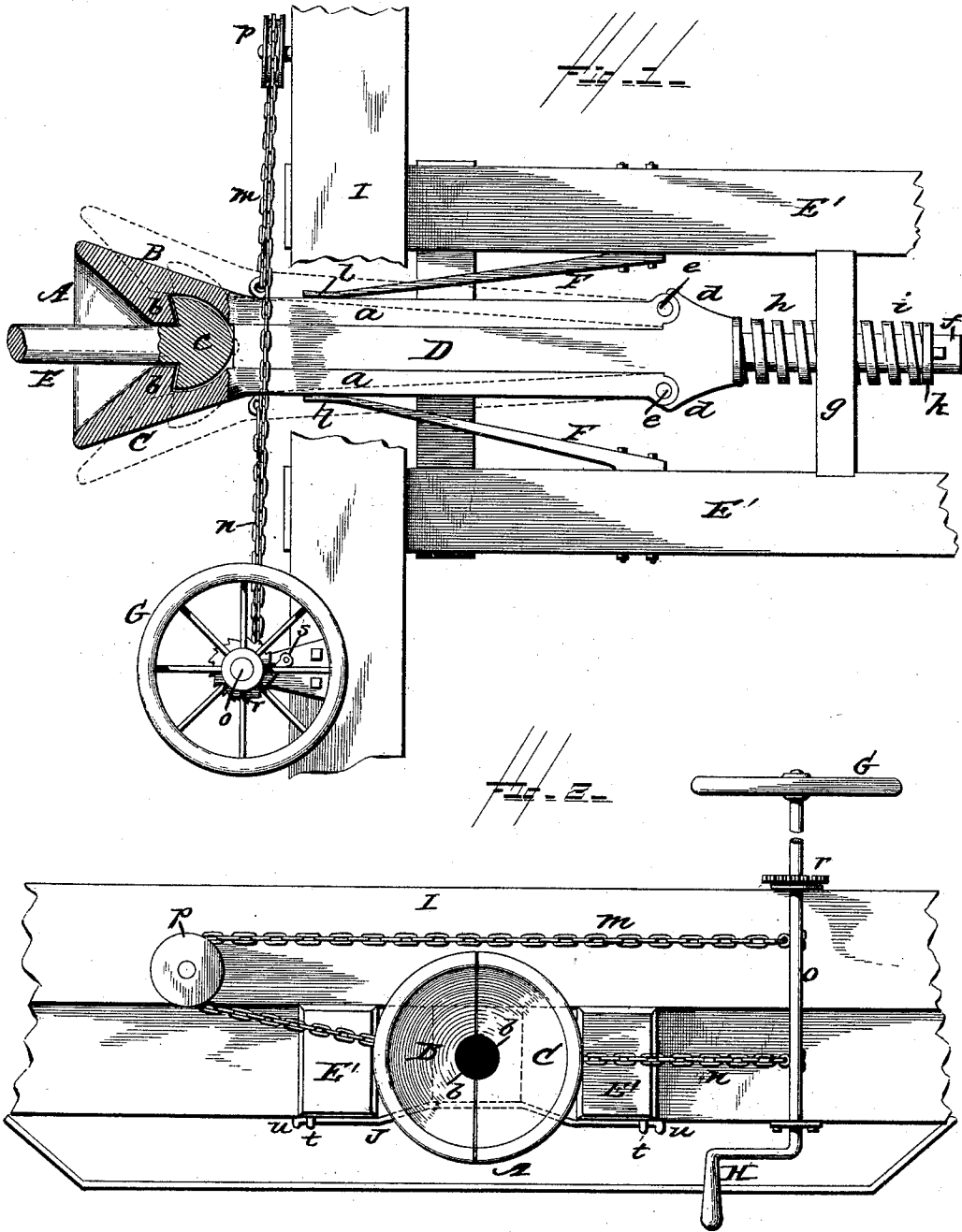


(No Model.)

J. ALLEN & E. HACKETT.
CAR COUPLING.

No. 409,343.

Patented Aug. 20, 1889.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES ALLEN AND EDMOND HACKETT, OF FLORENCE, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 409,343, dated August 20, 1889.

Application filed April 23, 1889. Serial No. 308,290. (No model.)

To all whom it may concern:

Be it known that we, JAMES ALLEN and EDMOND HACKETT, citizens of the United States, residing at Florence, in the county of Lauderdale and State of Alabama, have invented certain new and useful improvements in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a plan view of our improved automatic car-coupling, and Fig. 2 an end view thereof.

The object of our invention is to provide a car-coupling that will be simple in construction, readily and conveniently operated without danger to the person employed in coupling or uncoupling the cars, and one that can be applied and is applicable to all classes of cars of whatever construction, which objects are attained by the construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents the draw-head, having a bell-shaped mouth and composed of two longitudinal sections B C, which terminate in shanks *a*, pivoted or hinged at their rear ends to a central bar D, each section of the draw-head having shoulders *b* to receive shouldered head *c* of the coupling-link E. The central bar D is formed at its rear end with shoulders *d* for conveniently hinging the ends of the shanks *a*, as shown at *e*, and from the rear of these shoulders projects a pin *f*, which passes through a transverse brace *g*, and around this pin are coiled spiral springs *h i*, one upon each side of the brace, with one end of each spring bearing against the transverse brace and the opposite ends bearing, respectively, against the shoulders *d* of the bar D and a washer *k* upon the end of the pin *f*.

To the longitudinal beams E' are attached one end of flat springs F, of such strength as to keep the draw-head sections closed against any longitudinal strain, the free ends of said springs having curved extremities *l*, which bear with the required pressure against the sides of the shanks *a*. The shanks *a*, imme-

diately in the rear of the draw-head sections B C, have secured to them one end of chains *m n*, the opposite ends of said chains being connected to a vertical shaft *o*, provided at its upper end with a hand-wheel G and at its lower end with a crank-handle H for operating it. The chain *m* passes around a grooved pulley *p*, connected to the front beam I, and the shaft *o* has a ratchet-wheel *r*, with which engages a suitable pawl *s*. The draw-head sections, with the shanks and central bar, are supported by a brace J, which is connected at its ends to the under side of the beams E'.

It will be noticed that the shoulders *b* on the draw-head sections are formed on an incline, as are also the shoulders on the head *c* of the coupling-link, thereby providing greater security against the sections being forced apart by the longitudinal strain caused by the pulling of the cars. The draw-head is opened by turning the wheel G in the proper direction, winding upon the shaft *o* the ends of the chains that are connected thereto, and are held open by the pawl engaging with the ratchet-wheel, which prevents the rod or shaft *o* turning back. The draw-head can be as conveniently opened when standing on the ground as when on the car-platform by means of the crank-handle H. The brace J is also a spring to allow the draw-head to yield in a vertical direction, it serving in both capacities—viz., a brace to hold the draw-head up and to yield to any downward pressure—and its ends pass through loops *t* and have shoulders *u* upon their extremities to prevent the ends of the spring-brace becoming disengaged from the loops. By this means of attaching the spring-brace to the beams E it will allow of its longitudinal play when pressure is brought down upon it by the draw-head.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The bell-mouth draw-head consisting of the two sections B C, having shoulders *b*, and the shanks *a*, hinged at their rear ends, as shown, in combination with the central bar D, having shoulders *d*, and pin *f*, and the spiral springs *h i*, encircling the pin, and the flat springs F, connected at one end to the beams E and their free ends bearing against

the shanks *a*, substantially as and for the purpose set forth.

2. The sectional draw-head composed of the sections B C, hinged shanks *a*, and the
5 central bar D, pin *f*, and springs *h i*, and the springs F, in combination with the spring-
brace J for supporting the draw-head, having
shoulders *u* at its ends and loosely supported
10 in hangers or loops *t*, whereby it is enabled to have a longitudinal play when the draw-head
presses upon it, substantially as and for the
purpose specified.

3. The sectional draw-head constructed
substantially as shown, and having its shanks
15 *a* hinged to a central bar D, which termi-

nates in a pin *f*, in combination with the
springs *h i*, and the springs F, and the spring-
brace J, rod *o*, chains *m n*, connected thereto
and to the draw-head sections, said rod hav-
ing a hand-wheel at its upper end and a crank 20
at its lower end, substantially as and for the
purpose set forth.

In testimony that we claim the above we
have hereunto subscribed our names in the
presence of two witnesses.

JAMES ALLEN.

EDMOND HACKETT.

Witnesses:

HENRY CLAY HOLDEN,

LUCIUS RALPH GRANDY.