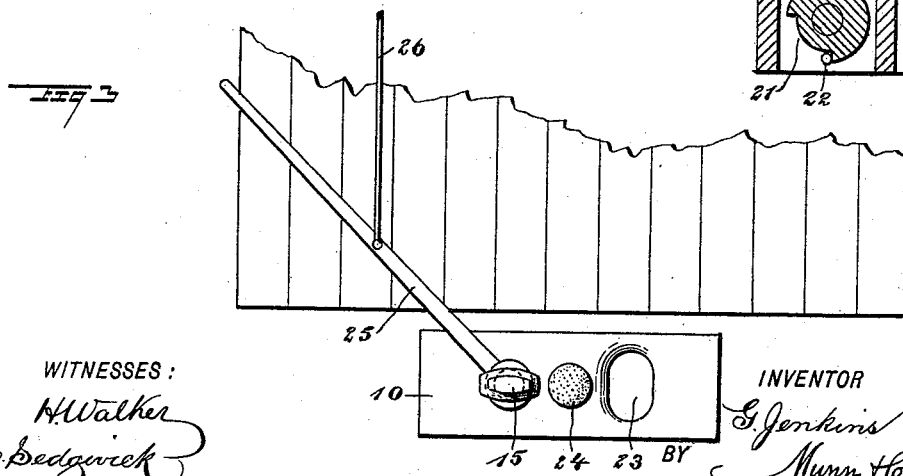
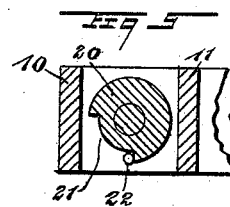
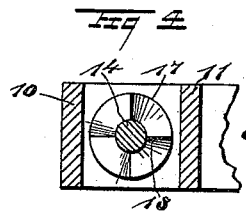
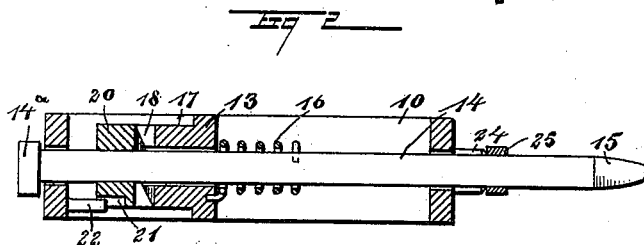
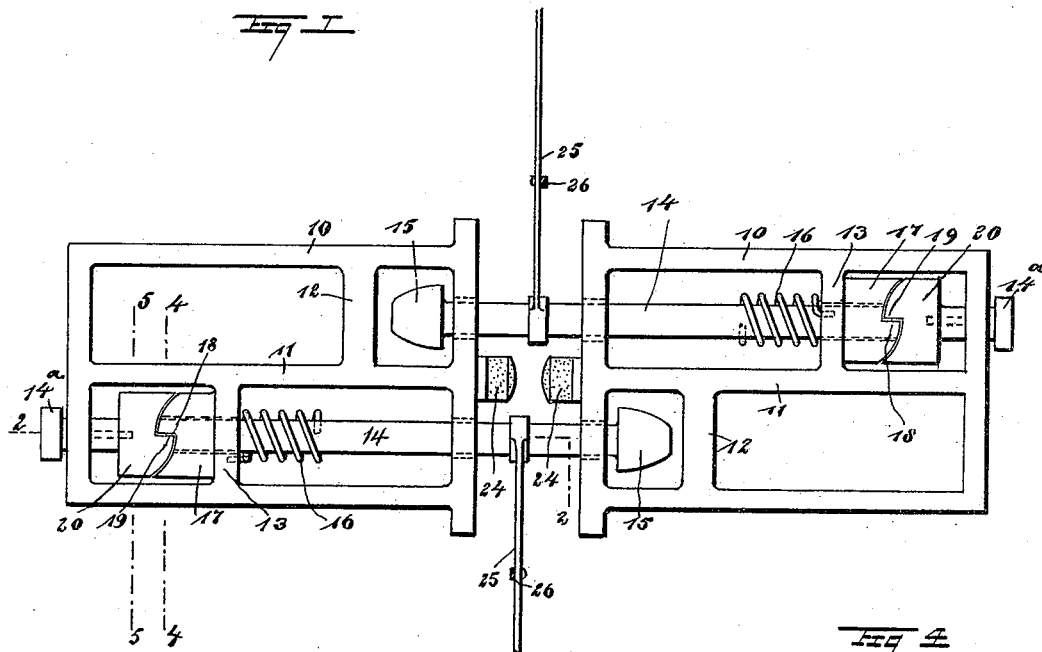


(No Model.)

G. JENKINS.
CAR COUPLING.

No. 494,424.

Patented Mar. 28, 1893.



WITNESSES:
H. Walker
L. Sedgwick

INVENTOR
G. Jenkins
Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GAMALIEL JENKINS, OF QUEENSBURY, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 494,424, dated March 28, 1893.

Application filed October 28, 1892. Serial No. 450,205. (No model.)

To all whom it may concern:

Be it known that I, GAMALIEL JENKINS, of Queensbury, in the county of Warren and State of New York, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to improvements in car couplings, and the object of my invention is to produce a simple coupling by means of which cars may be automatically coupled together, which also operates in such a way that the cars may be uncoupled from the sides or top so that the brakeman will not need to step between them, which is provided with a pair of draw bars, so that if one should break by any accident the other would hold the cars together, and which may be cheaply made and easily operated.

To this end my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is plan view of two connected couplings showing the top rods for operating the coupling, in section. Fig. 2 is central longitudinal section of one coupling. Fig. 3 is an end view of the same, as applied to a car. Fig. 4 is a cross section on the line 4—4 in Fig. 1; and Fig. 5 is a cross section on the line 5—5 in Fig. 1.

The coupling is provided with a frame 10, which is preferably of rectangular shape, and may be secured beneath a car in any convenient way, and the frame is divided longitudinally by a partition 11, and transversely by the cross ribs 12 and 13, the former serving as a stop for the head of the draw bar of an opposing coupling, and the latter serving as a support for the draw bar, the shank 14 of which slides longitudinally through the frame, having at its rear end a collar 14^a to limit its forward movement, and having at its forward end a head 15 which is adapted to enter the frame of an opposing coupling. The head 15 is very much wider one way than the other, so that when turned one way, it may easily enter the mouth of an opposing coupling, and when turned a quarter way round it will be

prevented from being withdrawn. This action will be freely described below. The draw bar is normally pushed forward and is held to twist by a spiral spring 16, which is coiled around the shank of the draw bar, one end being fixed to the bar and the other to the rib 13. The rib 13 has formed on its back side a hub 17, through which the shank 14 of the draw bar slides, and on the back face of the hub are teeth 18, adapted to engage similar teeth 19 on the hub 20, which is carried by the draw bar, and consequently the two hubs form a clutch and when in engagement prevent the draw bar from turning. The hub 20 has a segmental recess 21, on one side and extending a quarter way around the hub, this recess being adapted to receive a lug 22, which projects forward from the back end of the frame 10. It will be seen that the lug will thus limit the distance which the hub 20 and the draw bar may turn when actuated either by the spring 16 or by the operating lever of the draw bar, as hereinafter described.

In the front end of the frame 10 and directly in front of the rib 12 is a mouth 23, adapted to receive the head of an opposing draw bar, this mouth being elongated vertically and when the head 15 of an opposing draw bar is turned up edgewise, it will readily enter the mouth and when it is turned transversely, after entering, it cannot be withdrawn. It will be readily understood that this mouth 23 may be elongated to any desired extent so as to permit the coupling of cars which vary greatly in height. To provide for turning the draw bar so as to release the head 15, the shank 14 is provided with a laterally extending lever 25, which extends outward to the side of the car; and when used on freight cars the lever has a rod 26, extending upward to the top of the car, so that the draw bar may be turned and released from that point. It will be understood that for passenger cars, the lever 25 could be made to extend vertically upward as well as to one side. The frame 10 of the draw bar is provided with a bumper 24, which is located near the center of the frame and at the front end, and when two couplings come together they will rock on these central bumpers, thus permitting the coupling to pass readily around a curve. To facilitate this action, the mouth

23 of the coupling should be wide enough to permit the shank 14 of an opposing coupling to fit very loosely therein.

The operation of the coupling is as follows:

5 To set the coupling for use, the shank 14 is twisted by means of the lever 25, so as to turn it against the tension of the spring 16 and bring the head 15 into a vertical edgewise position to enable it to easily enter the mouth of
10 an opposing coupling. When turned into this position the hub 20 will be drawn forward by the spring 16, and the teeth 19 thrown into engagement with the teeth 18 of the fixed hub 17 thus fixing temporarily the position
15 of the draw bar. When the two couplings come together, the head of one will enter the mouth of the other and when the heads strike the ribs 12, each draw bar will be pushed inward so as to release the clutches, that is, so
20 as to disengage the teeth 18 and 19, and the springs 16 will immediately turn the draw bars so that the heads 15 will extend transversely across the mouths 23, this limitation of the movements being effected by the lugs
25 22 and recesses 21, and the two couplings will thus be firmly locked together. To release them the levers 25 are actuated either directly or by the rods 26, so as to turn the heads 15 into a vertical edgewise position.

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

35 1. A car coupling, comprising a frame having a spring-pressed draw bar held to slide therein, and having a flattened head, the draw bar being held to turn by means of its tension spring, a clutch to fix the position of the

draw bar, an elongated mouth produced in the end of the frame at one side of the draw bar, and a cross rib arranged behind the
40 mouth, substantially as described.

2. A car coupling, comprising a frame having an elongated mouth on one side, and a cross rib behind the mouth, a sliding spring-pressed draw bar arranged longitudinally in
45 the opposite side of the frame and having a flattened head at one end, a spring held to twist the draw bar, a lever mechanism for turning the draw bar against the tension of the spring, and a fastening clutch to hold the
50 draw bar in place, the fastening clutch being released by pressure endwise upon the draw bar, substantially as described.

3. A car coupling, comprising a frame having a flat front end with a central bumper
55 thereon, an elongated mouth produced at one side of the bumper, a cross rib held behind the mouth, a sliding draw bar held longitudinally in the frame on the opposite side of the bumper, a flattened head produced at the
60 front end of the draw bar, a spring arranged to twist the draw bar, and a clutch to fix the position of the draw bar, the clutch being adapted to be released by endwise pressure on the draw bar, substantially as described. 65

4. In a car coupling, the combination with the spring-turned draw bar having a fixed hub thereon, of a lug fixed to the draw bar frame, and held to enter a segmental recess in the hub, substantially as described.

GAMALIEL JENKINS.

Witnesses:

AMOS WHEELER,
PARLEY JENKINS.