

No. 710,256.

Patented Sept. 30, 1902.

D. J. DAVIS.
CAR COUPLING.

(Application filed Dec. 19, 1901.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1

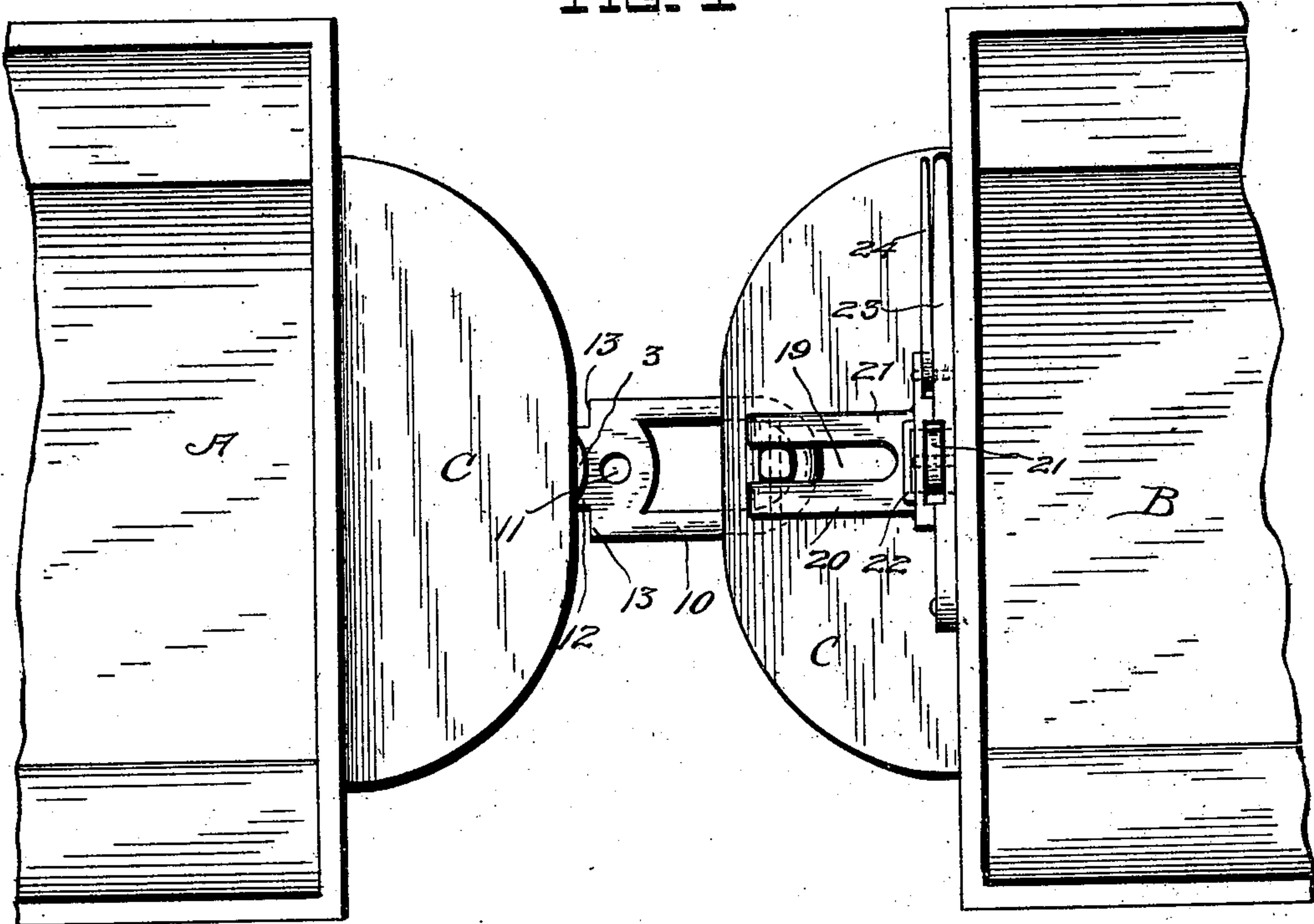
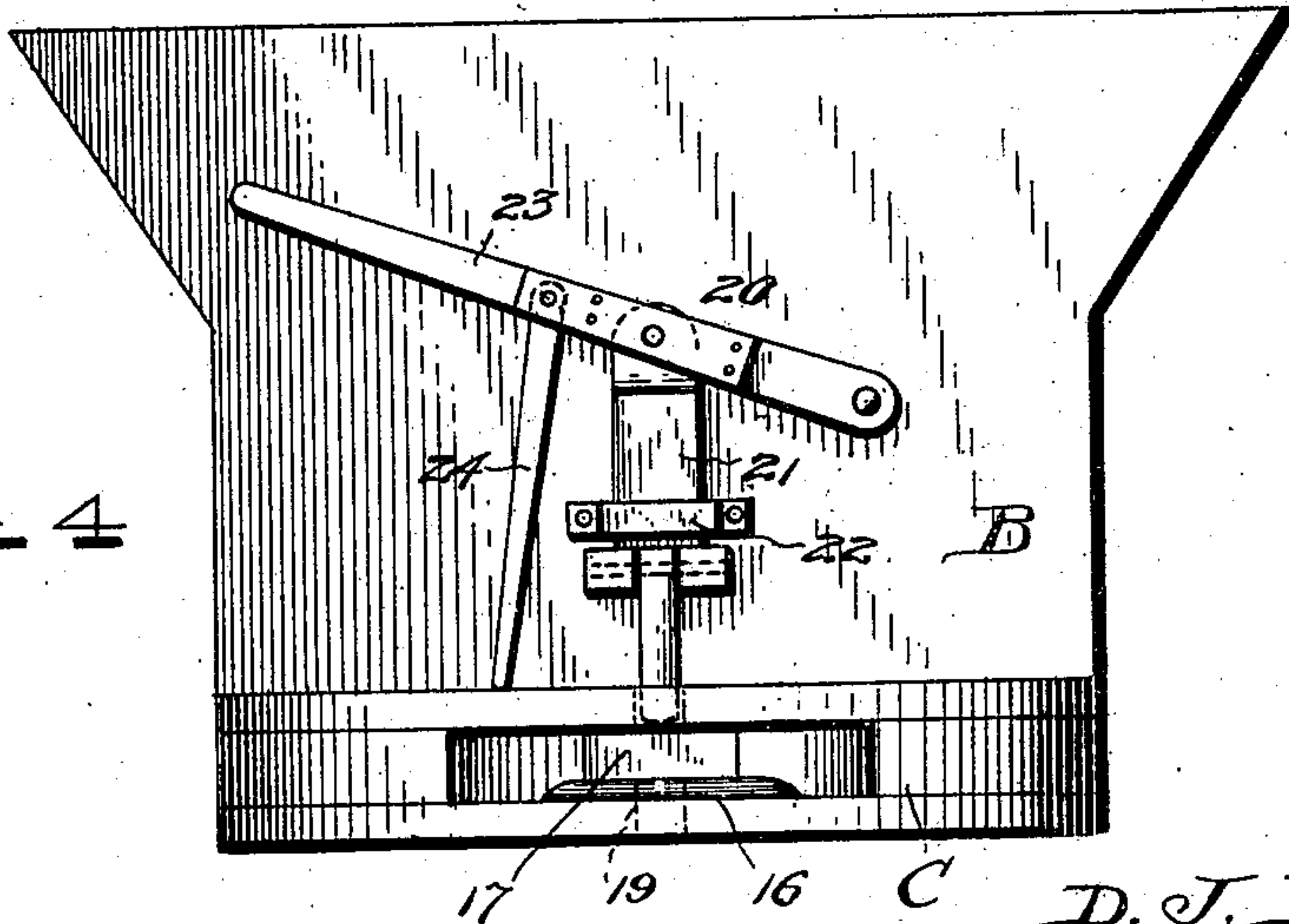


FIG. 4



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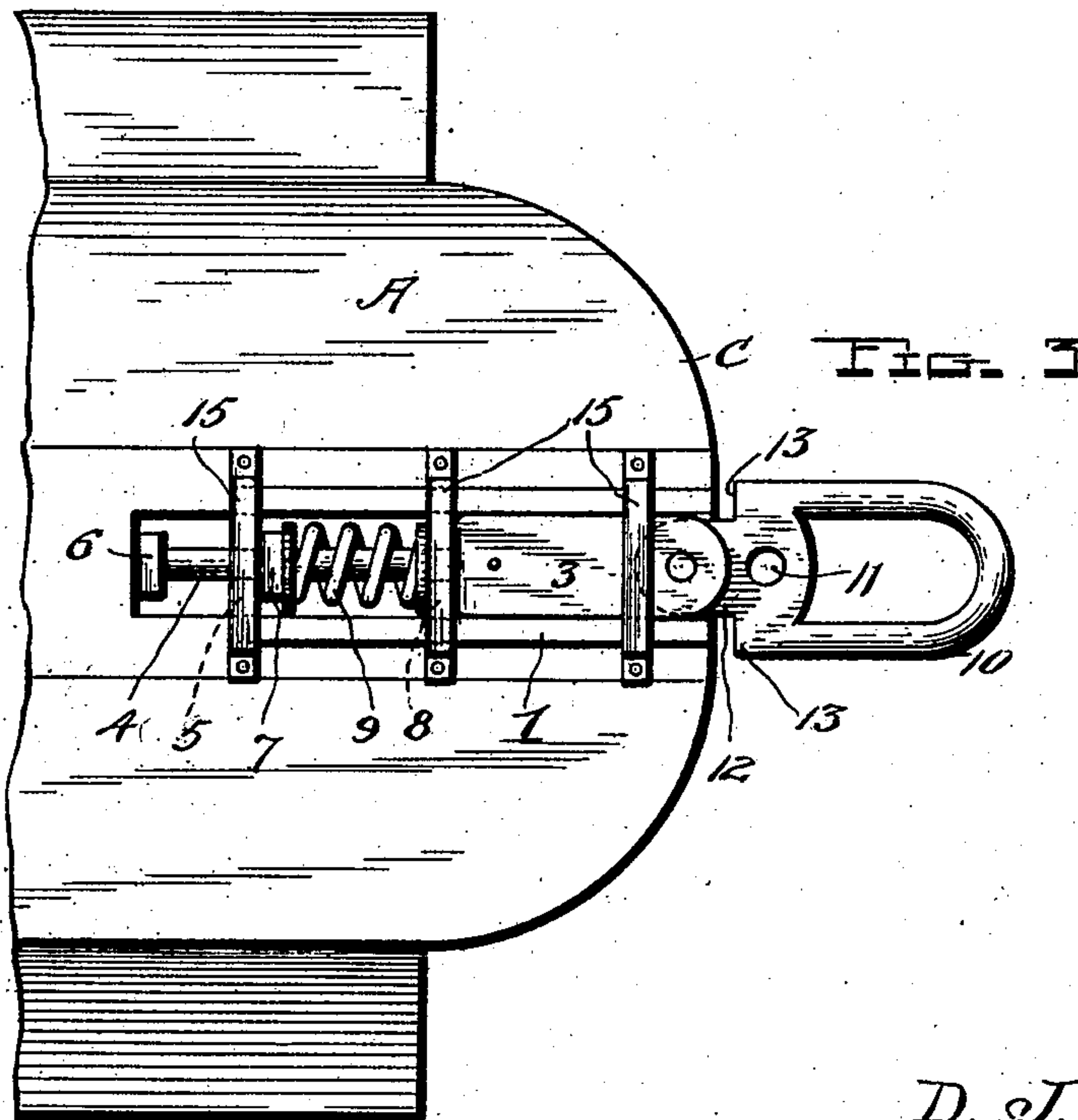
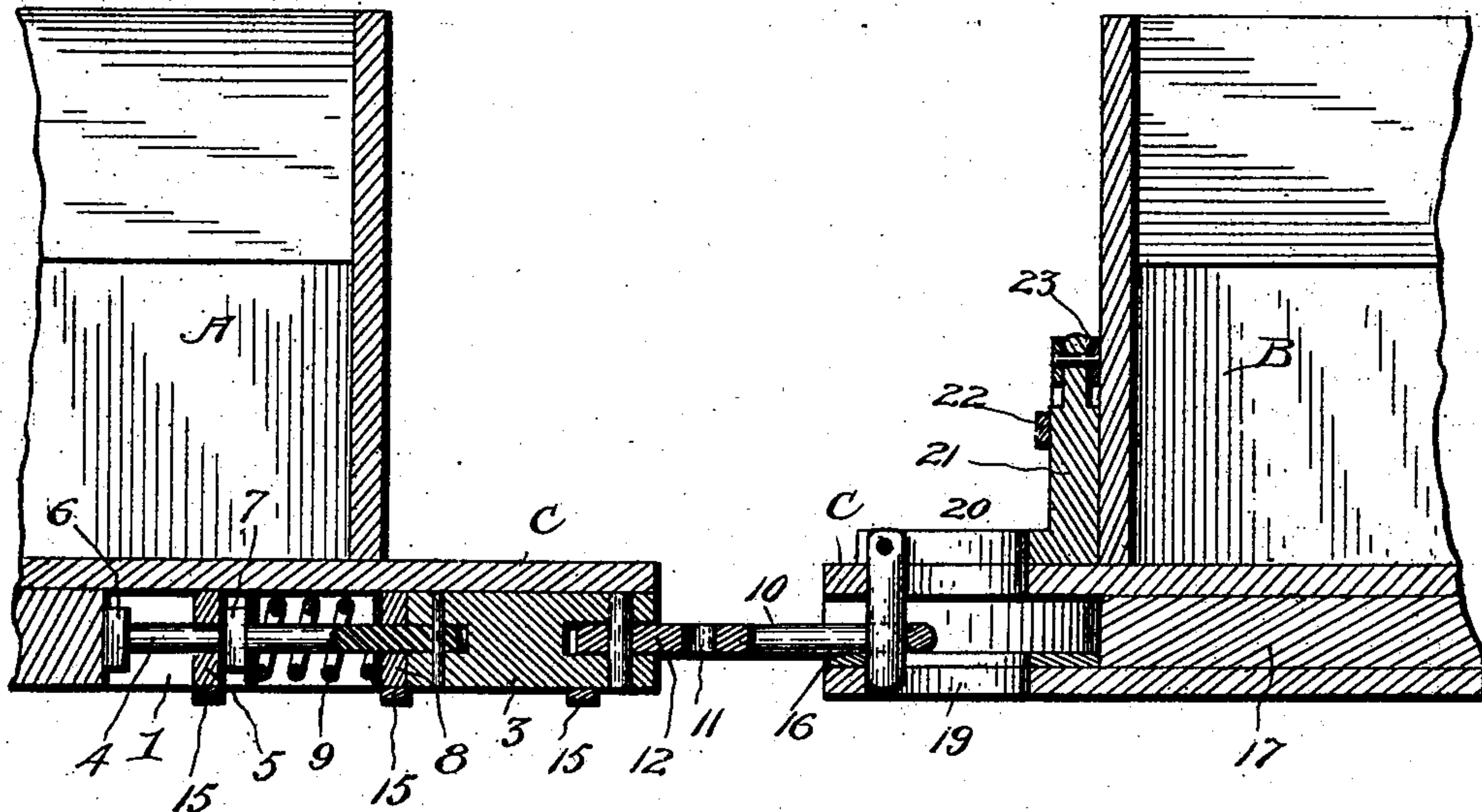
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2 Sheets—Sheet 2.

FIG. 2



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UNITED STATES PATENT OFFICE.

DAVID J. DAVIS, OF VENTLAND, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 710,256, dated September 30, 1902.

Application filed December 19, 1901. Serial No. 86,542. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. DAVIS, a citizen of the United States, residing at Ventland, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to car-couplings, and more particularly to couplings for mining-cars.

The object of the invention is to provide a coupling of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and efficient in action.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a top plan view of the adjacent ends of two mining-cars, illustrating the application of my invention. Fig. 2 is a longitudinal vertical sectional view. Fig. 3 is a bottom plan view of that end of the car carrying the link, and Fig. 4 is an elevation of that end of the car supporting the pin-lifter.

Referring to the drawings, A and B denote, respectively, the rear end of the front car and the front end of the rear car. The meeting end of each car is provided with a bumper C.

1 denotes a boxing secured to the under side of the rear car.

3 denotes a draw-bar mounted to slide in said boxing and provided with a pivoted stem 4 at its rear end, which extends through the end piece 5 of the boxing. This stem has two stop-shoulders 6 and 7, and the boxing has a partition 8, against which the rear end of the draw-bar is adapted to abut. Coiled about the stem is a stiff coil-spring 9, which is confined between the shoulder 7 and partition 8.

10 denotes a link pivoted to the forward end of the draw-bar and provided with an aperture 11, to which the harness of the draft-animal may be attached when desired. This link is provided with an extension 12, which projects

into the bifurcated forward end of the draw-bar and is formed with shoulders 13, which are arranged a slight distance forward of the forward ends of the boxing and bumper, so that the link will always have a slight lateral swinging movement upon its pivot, whereby the cars may be coupled on a curve, and if the curve of the track is of such radius as to prevent the coupling of the cars by the swinging of the link to one side the link may be swung still a greater distance by applying pressure to it, as one of the shoulders will abut against the end of the box, which will in that instance act as a fulcrum to permit of the compression of the coiled spring. Straps 15 are secured to the under side of the boxing and serve to secure the boxing to the under side of the car.

The rear end of the front car is provided with a draw-head or bull-nose 16, which is attached to a draw-bar 17. This draw-head is provided with a pin-aperture 19.

20 denotes a pin-lifter, which consists of a right-angular bracket 21, the horizontal portion of which is bifurcated and is pivotally connected to the pin and the vertical portion of which has a sliding movement in a strap-bearing 22. The upper end of the vertical portion is pivoted to the lever 23, which in turn is pivoted to the rear end of the front car, and has its opposite end projecting laterally within convenient reach to be grasped and operated. A gravity-prop 24 is pivoted to said lever, whereby when said lever is elevated to raise the pin said prop will of its own accord hold the lever in elevated position.

When it is desired to connect the cars, the link of one car is engaged with the draw-head of the other car and the prop is pulled to one side, thus allowing the pin to drop and to engage the link.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

In a car-coupling, the combination with the
5 boxing attached having its rear end closed,
and a partition extending across the boxing;
of a draw-bar mounted to slide in said boxing
in advance of said partition, a stem connected
10 to the rear end of said draw-bar and
projecting through the partition and through
the rear end of said boxing, a coiled spring
about said stem, a stop secured to the stem
in advance of the partition and between which
and the draw-bar the coiled spring is con-
15 fined, and a second stop secured to the end of

the stem, and, when the stem and draw-bar are
in normal position and not under the stress
of the spring, adapted to abut against the forward
end of the draw-bar and relieve the partition
of undue pressure caused by shock or jar in
the coupling of cars, substantially as set forth.

In testimony whereof I have hereunto set
my hand in presence of two subscribing witnesses.

D. J. DAVIS.

Witnesses:

T. R. DAVIS,
L. E. WILSON.