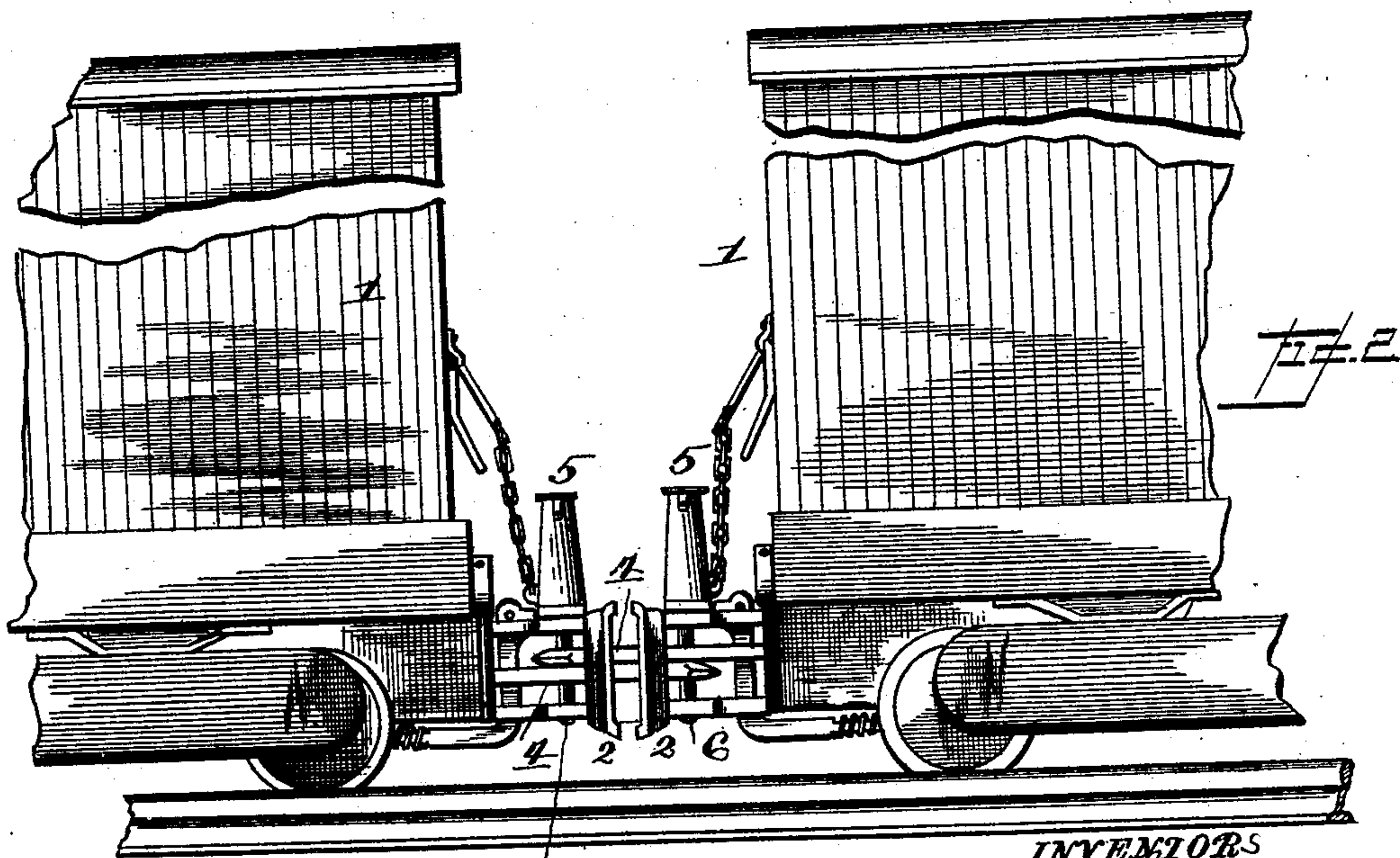
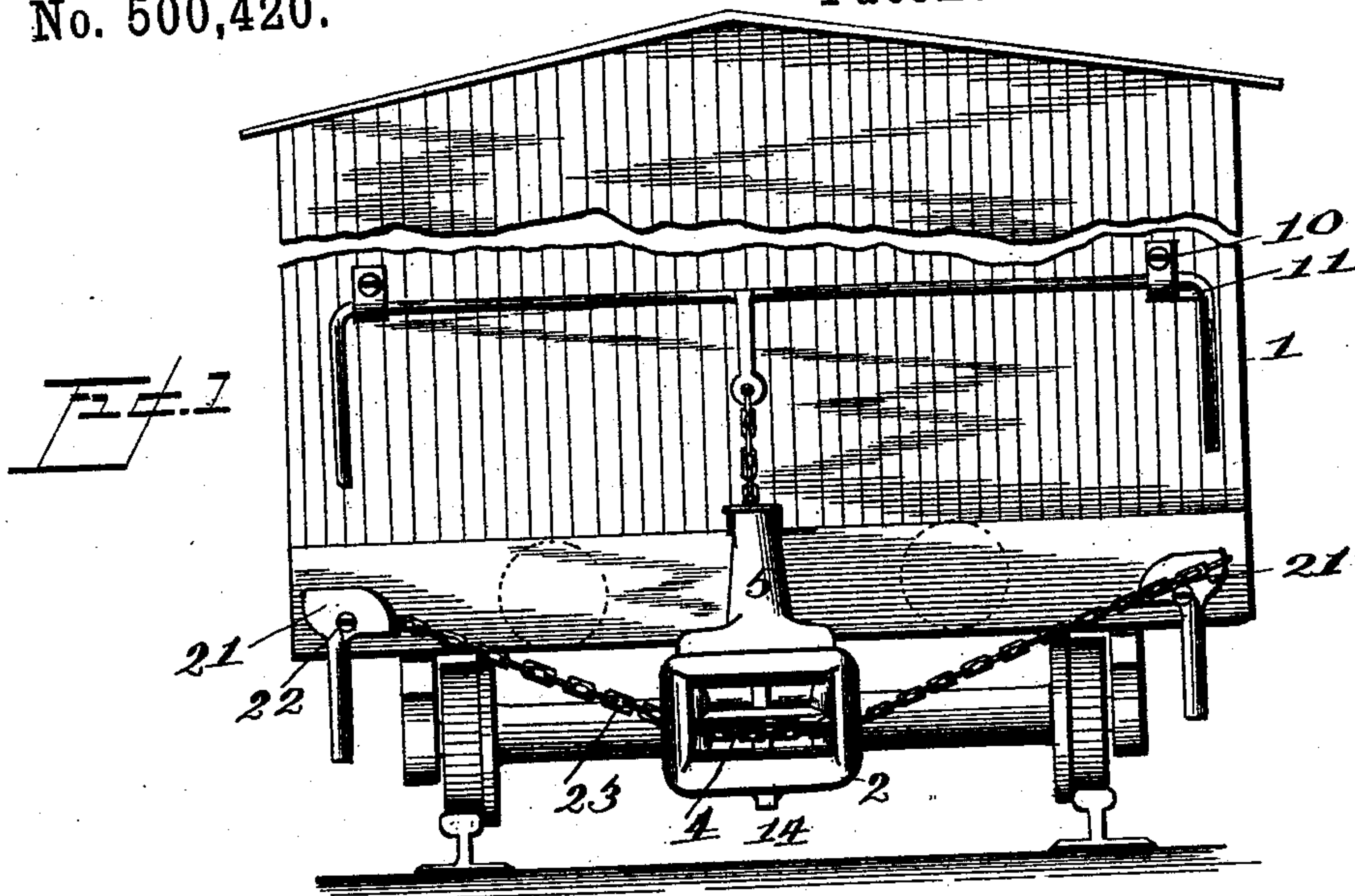


(No Model.)

W. B. & S. C. PEOPLES & T. J. COX.  
CAR COUPLING.

No. 500,420.

Patented June 27, 1893.



WITNESSES

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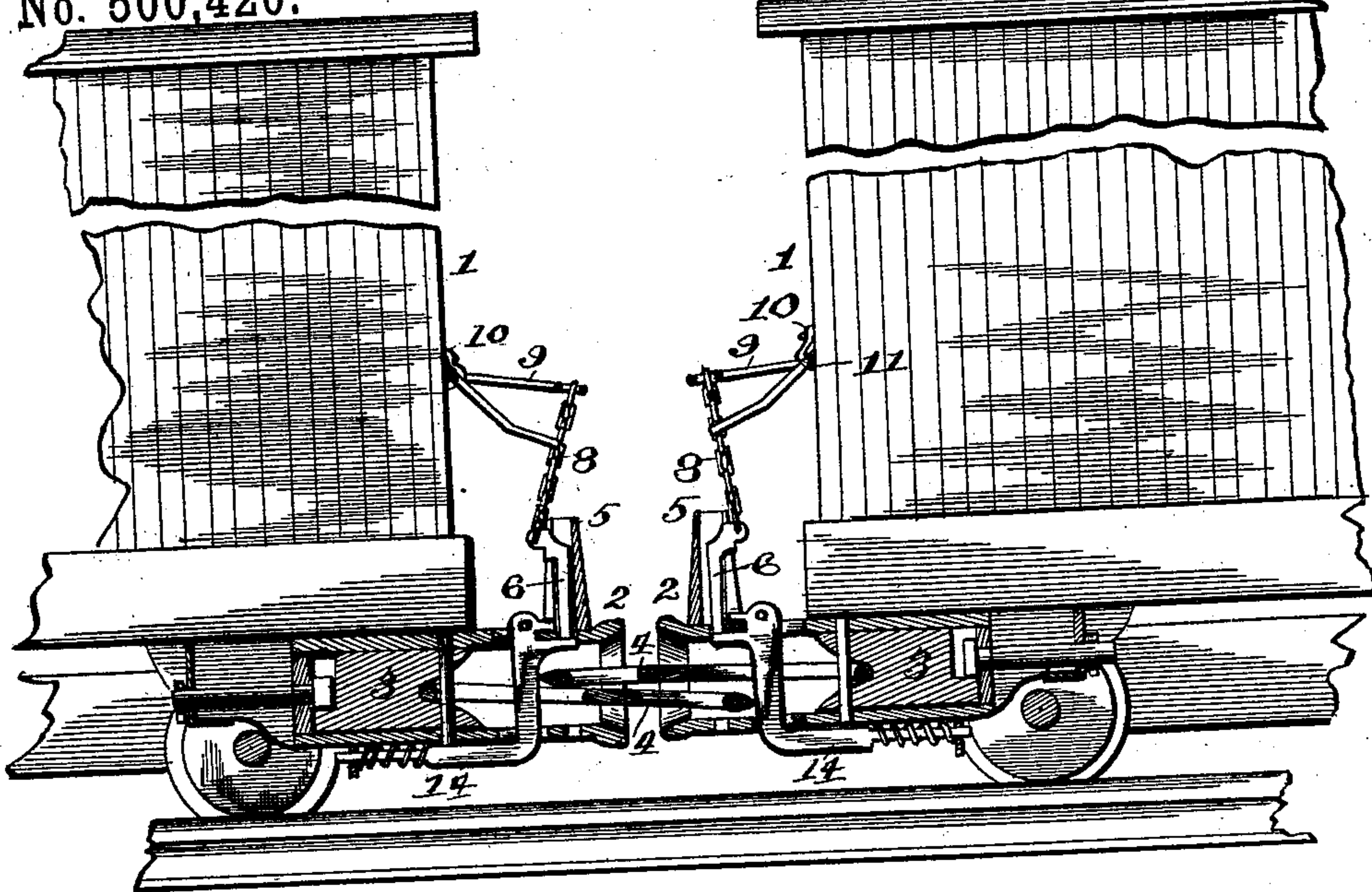


Fig. 3.

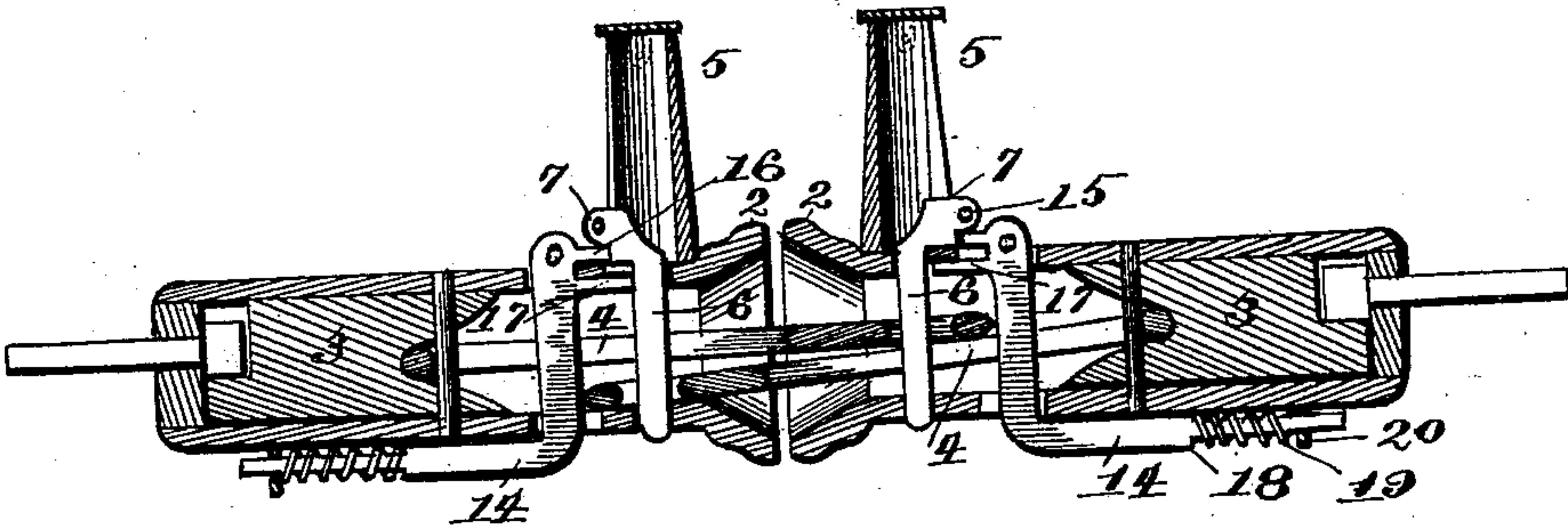


Fig. 4.

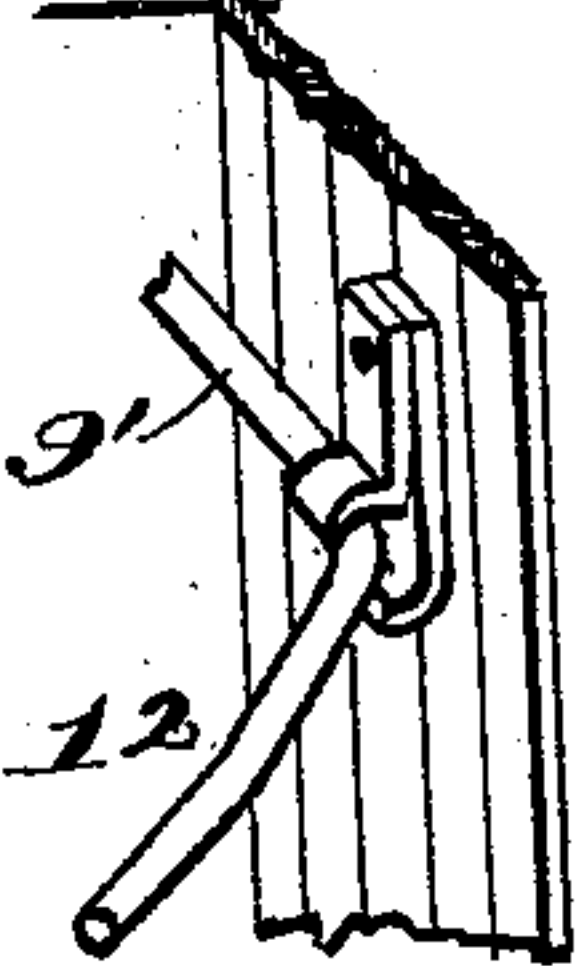


Fig. 5.

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# UNITED STATES PATENT OFFICE.

WILLIAM B. PEOPLES AND SAMUEL C. PEOPLES, OF MILLIGAN, AND THOMAS J. COX, OF JOHNSON CITY, TENNESSEE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 500,420, dated June 27, 1893.

Application filed September 22, 1892. Serial No. 446,629. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM B. PEOPLES and SAMUEL C. PEOPLES, residing at Milligan, in the county of Carter, and THOMAS J. COX, residing at Johnson City, Washington county, Tennessee, citizens of the United States, have invented certain new and useful Improvements in Car-Couplings; and we 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in that class of car couplers in which the coupling mechanism is operated, automatically, to connect the cars, when two come together, so as to prevent the necessity of the entrance of a person between the cars, when coupling the same, and to permit the cars to be uncoupled from either side, without such entrance between them.

Our invention has for its objects to provide improved mechanism to effect such automatic coupling; to provide for holding the coupling pins in position to be dropped, automatically, by the action of the coupling links when two cars meet, and to provide for adjusting the height of the coupling links, so as to adapt them to cars having their draw heads set at different elevations as more fully hereinafter specified. These objects we attain by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a front elevation of a car, showing the mechanism for adjusting the coupling link to the proper elevation. Fig. 2 represents a side elevation showing portions of two coupled or connected cars. Fig. 3 represents a side elevation of portions of two cars showing the coupling mechanism in section and in a position about to be coupled. Fig. 4 represents a longitudinal vertical sectional view of the coupling mechanism detached, with the parts in a connected or coupled position, and Fig. 5 a detached perspective view showing a portion of the rod and one of the levers by which the coupling

pin is drawn upward, held and released to effect the coupling and uncoupling of the cars.

Referring to the drawings, the numeral 1 indicates two cars of the ordinary description and 2 the draw heads thereof which have the usual flaring openings, in front, and which are secured to the lower frame work of the cars in any convenient manner. The said draw heads are hollow, and within the rear portion of each is located a block 3 having an angular recess in front, provided at its apex with a bearing, for the rear portion of a coupling link 4, which swings in such bearing, pivotally. The outer portion or end of each link, is beveled as indicated so that when two opposing links meet as the two cars come together, they will automatically ride one over the other so as to pass into the coupling heads in proper position to operate the coupling pin holding devices, and permit the coupling pins to drop into the proper engaging position.

The draw heads are provided with vertical extensions 5, which are hollow and slotted longitudinally on one side, and at the base of these extensions and diametrically below the same the draw heads are provided with apertures for the passage of the coupling pins 6. These are formed with right angled offsets 7 at their upper ends, which pass outward through the slots in the extensions when the pins are in place, permitting the pins to play freely up and down in the extensions, without turning. The upper end of each offset is provided with an aperture to which is secured the lower end of a chain 8, the upper end of which is attached to the end of a lever arm 9, integral with or secured to a transverse rod 9' mounted in bearings 10 secured to the front of the car. The bearing at one side has a lateral offset or projection 11 at one side and the rod is capable of a slight longitudinal movement, transversely across the front of the car for the purpose hereinafter explained. At each end the said rod is formed or provided with a lever arm 12, by means of which it may be turned to elevate the coupling pins through the medium of the connecting chains. The offset of each coupling pin, directly below the aperture is shouldered to form an



interlocking abutment, which will operate with the automatic coupling mechanism to hold the pin down, when the cars are coupled so as to prevent accidental displacement and the consequent uncoupling of the cars.

The numeral 14 indicates two angle levers, one fulcrumed in a recess or slot in each draw head, at a point indicated by the numeral 15. The said levers near the fulcrum bearings, and just in front of the same, are provided with short parallel, right angled extensions 16, 17, the upper one of which is shorter than the lower for the purpose hereinafter explained. The lower angular arms of the levers extend backward and are shouldered at 18 and surrounded by spiral springs 19 which bear against the shoulder, and an abutment 20 on the car frame, through which the lower arm of each lever passes, so as to hold the lever in a normal position and return it automatically to the same, in coupling and uncoupling. The extension 17 serves as a support to the lower end of the coupling pin to hold it in an elevated position when the cars are to be coupled as indicated in Fig. 1 of the drawings, and the extension 16 to lock against the shoulder on the coupling pin to hold it down when dropped and the couplings connected.

The numerals 21 indicate two levers which are provided with grooved eccentric heads, and which are fulcrumed near each side of the end of the car, at about the points indicated by the numerals 22. The heads of these levers are peripherally grooved as indicated and in the grooves of the opposite levers are secured the ends of a chain 23 passing through the draw head, and under the link thereof, so that when the arm of either lever is turned inwardly the chain will be drawn upon so as to elevate the link, the other lever remaining stationary, as the chain will pull, from a point directly back of and in line with the draft of the chain, affording no leverage by which to move it, thus providing for the elevation of the link from either side of the car, so as to adjust the link in entering the opposite draw head.

In operation, the pins of the draw heads of the respective cars are drawn up, and held as shown in Fig. 3 of the drawings.

When the cars have properly approached each other and the draw heads are about coming together, the links will meet, pass each other, and throw back the angle levers, dropping the coupling pins through the links. On the forward movements of one of the cars the levers, will assume a normal position causing their shorter extensions to abut against the locking shoulders of the pins and lock them against accidental displacement.

To guide the links in entering the draw heads, the eccentrically operated lever at either side is employed to regulate the elevation of the link without requiring the entrance of a person between the cars.

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

1. The combination in a car coupler having coupling heads having upright, longitudinally slotted extensions the coupling pins having lateral offsets extending through the slots thereof the bars mounted in bearings at the front of the cars having lever arms connected with the offsets of the coupling pins and lever arms at each end, one of which is adapted to engage the offset of the bearing to hold the coupling pin in an elevated position substantially as specified.

2. The combination with the draw heads with the coupling pins having shouldered offsets of the angle levers having parallel extensions at their upper ends, and springs at their lower arms, the shorter extensions serving to hold the pin in position when dropped, substantially as specified.

3. The combination with the draw heads, of the angularly recessed blocks, fitted therein and the links pivoted in bearings in said blocks and having their bearings in said blocks and having their forward ends, beveled so as to ride over each other in entering the draw heads, substantially as and for the purposes specified.

4. The combination with the draw heads and the links pivoted therein of the eccentrically headed levers and the chains secured thereto and passing under the links of the respective heads whereby the elevation of the links may be adjusted substantially as specified.

5. The combination with draw head having vertical slotted extensions of the coupling pins, the transverse rods and elevating lever arms, the angle levers and their supporting and locking extensions; and the spiral springs whereby they are held and returned to normal position substantially as specified.

In testimony whereof we affix our signatures in presence of witnesses.

WILLIAM B. PEOPLES.  
SAMUEL C. PEOPLES.  
THOMAS J. COX.

Witnesses to signatures of William B. Peoples and Samuel C. Peoples:

PIERCE W. JULIAN,  
JOHN K. SMITH.

Witnesses to signature of Thomas J. Cox:  
SHIPLEY BRASHEARS,  
E. G. BRASHEARS.