

(No Model.)

F. WUSSOW.
CAR COUPLING.

No. 452,000.

Patented May 12, 1891.

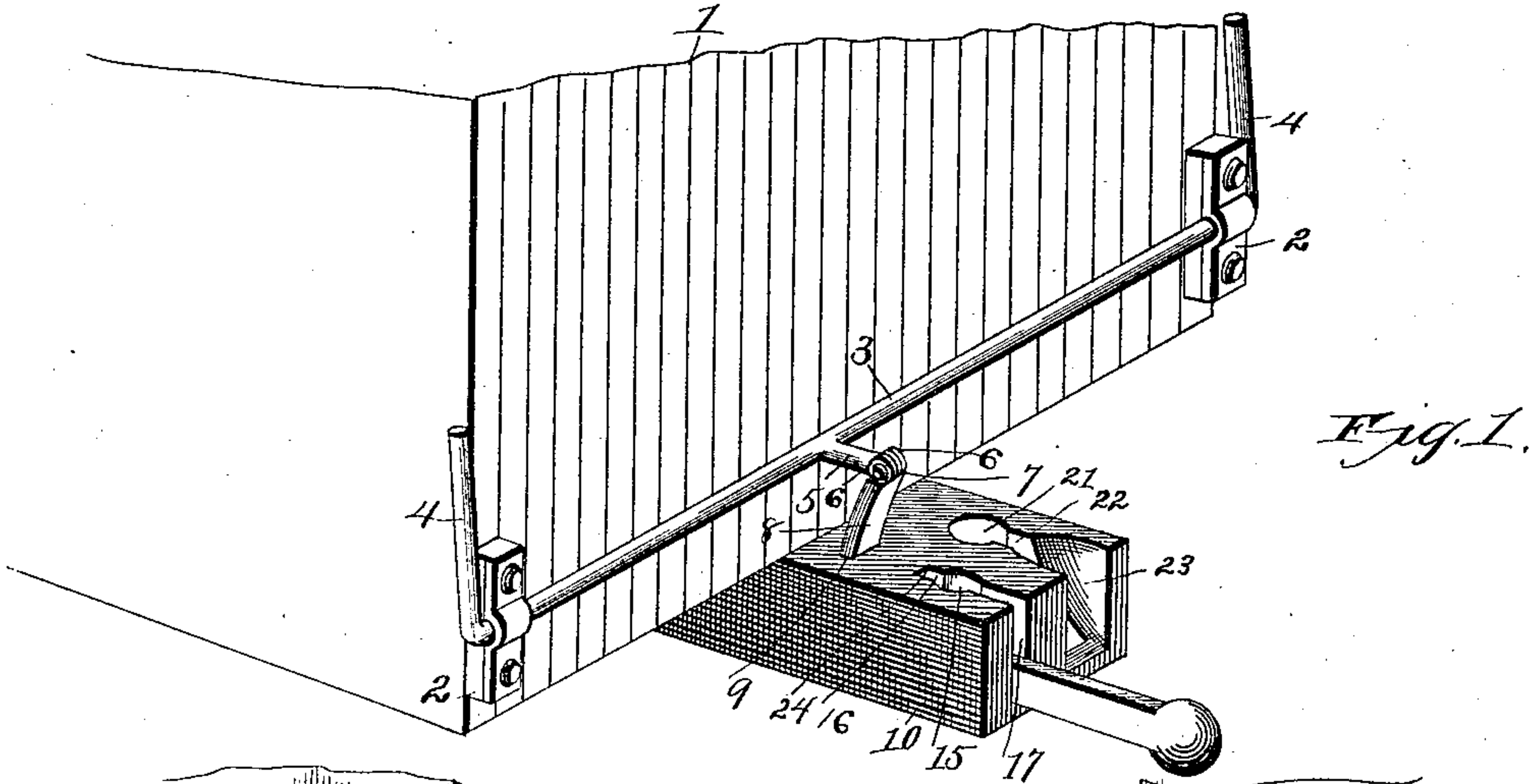


Fig. 1.

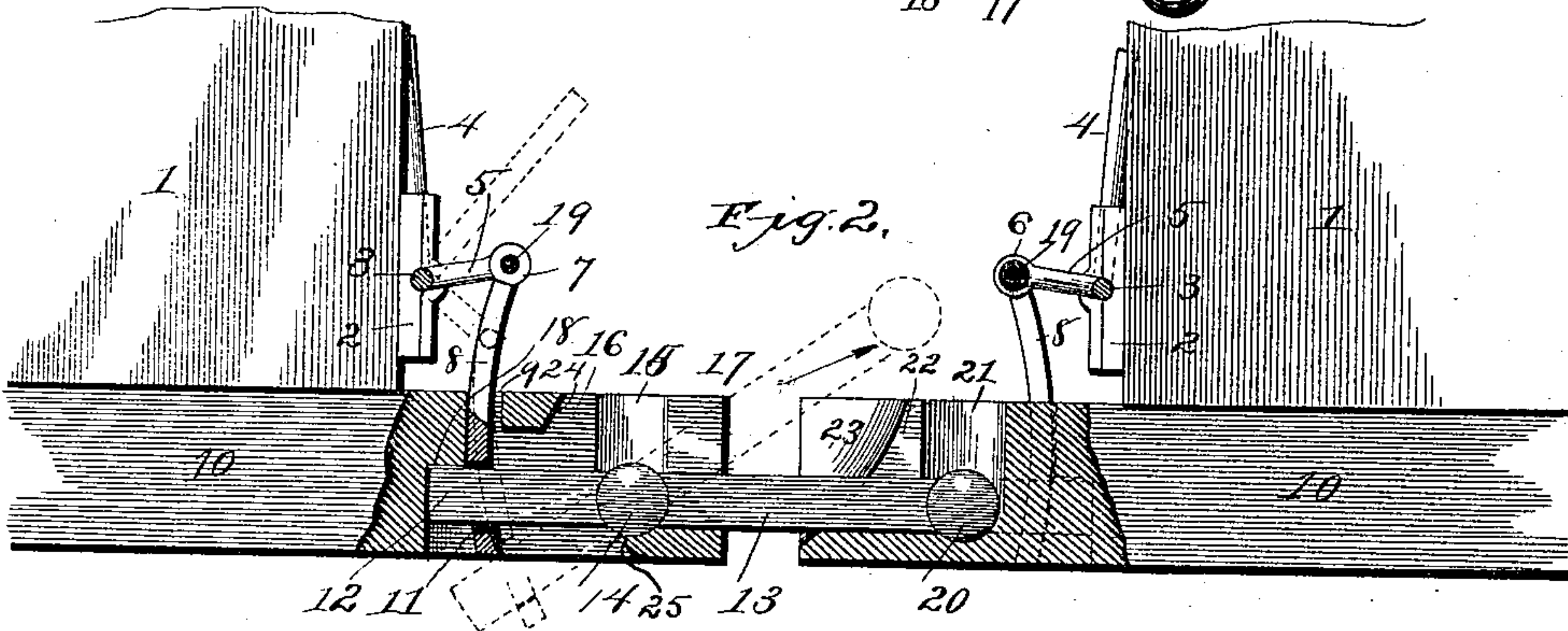
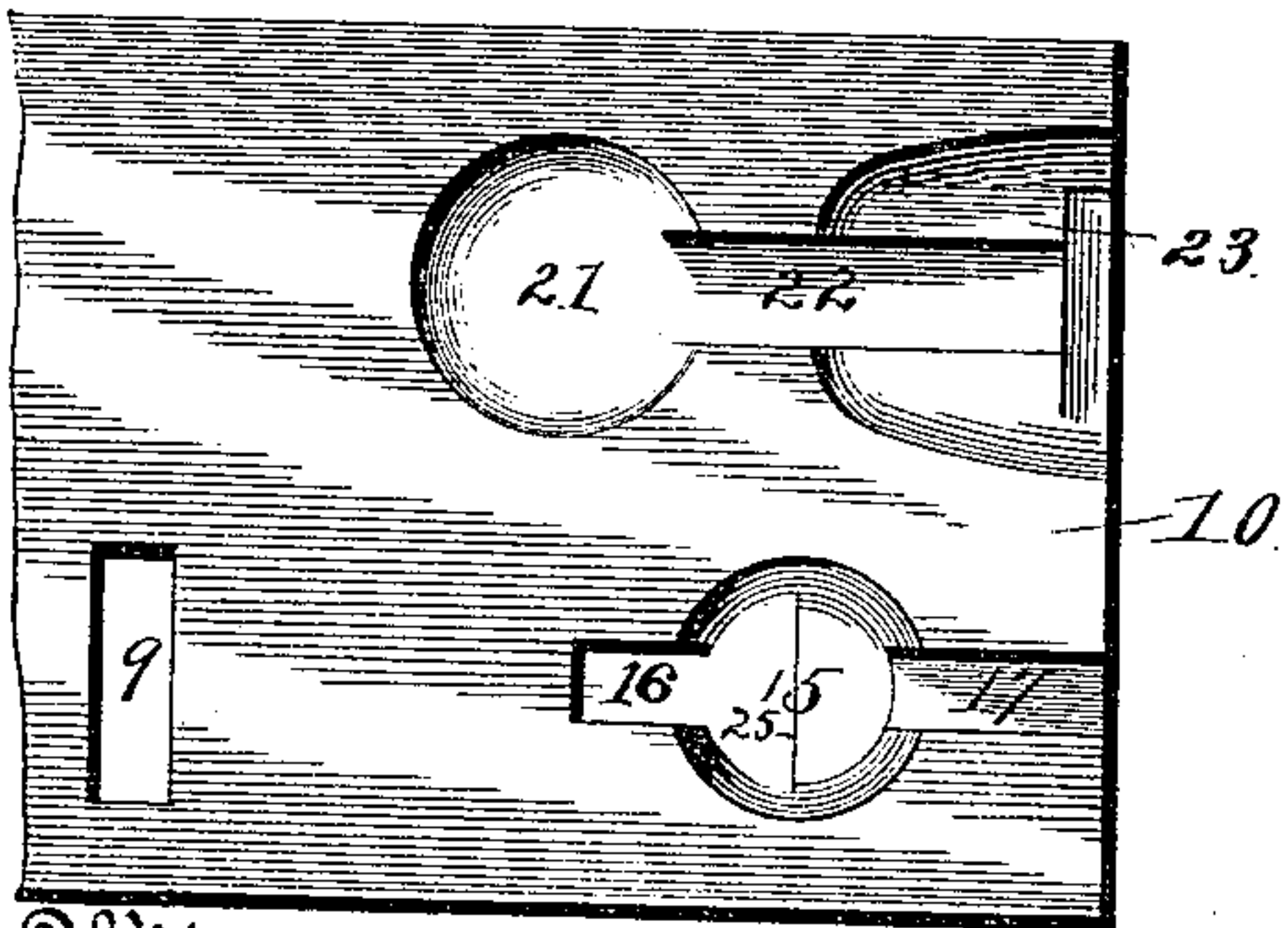


Fig. 2.

Fig. 3.



Witnesses

Geo. F. Dodge.
H. E. Price.

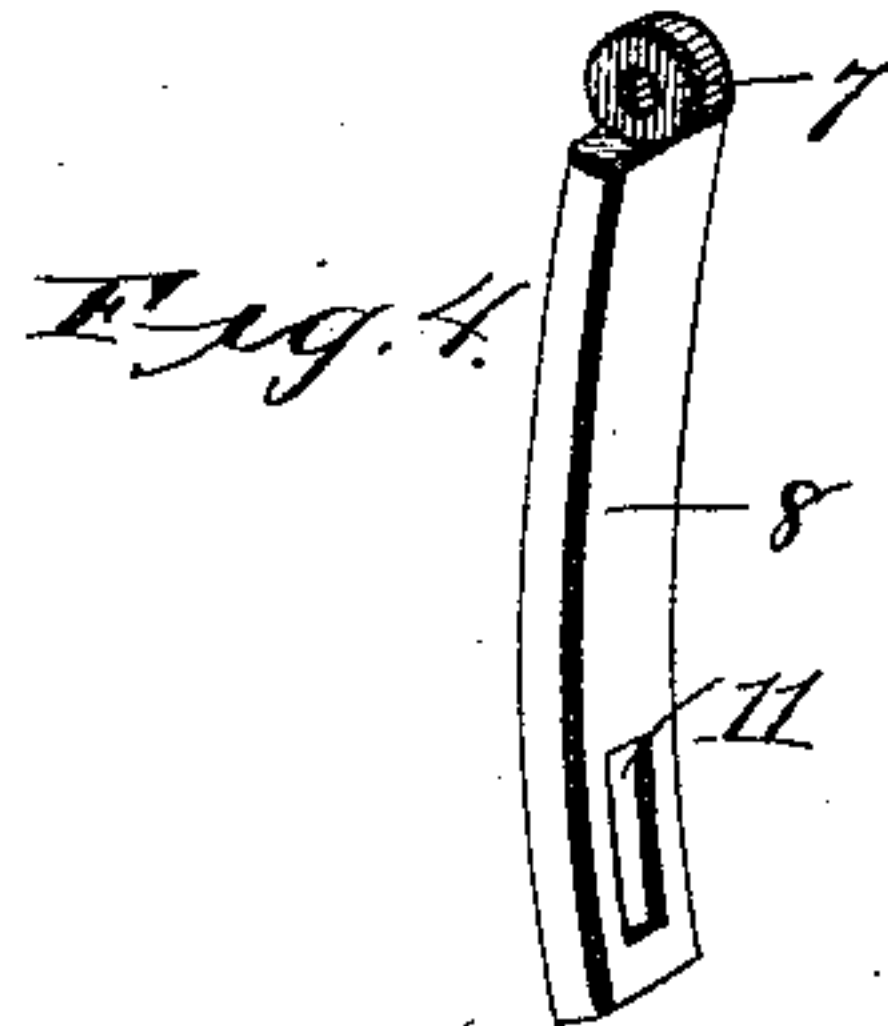


Fig. 4.

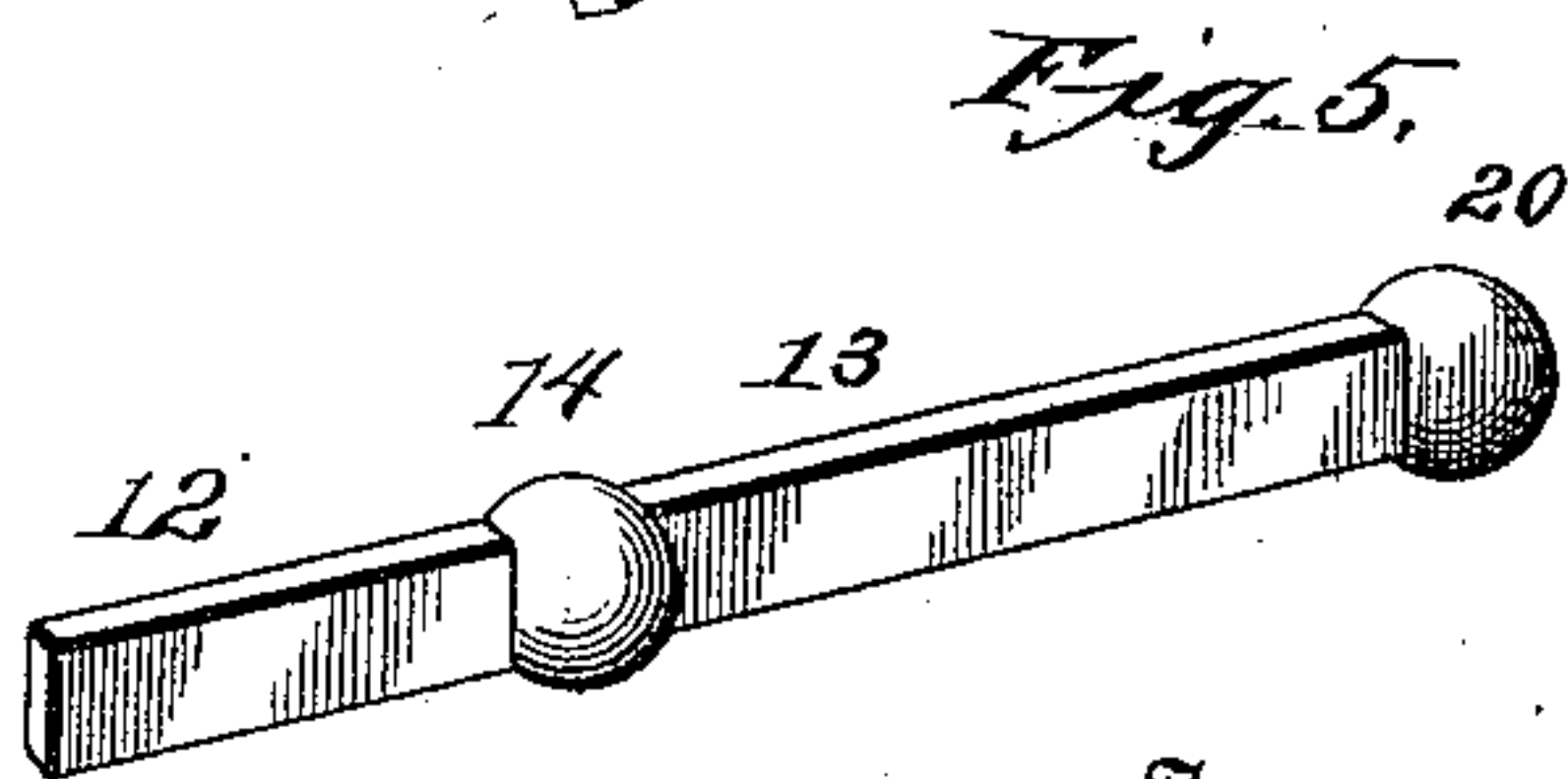


Fig. 5.

Inventor

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UNITED STATES PATENT OFFICE.

FRIEDRICH WUSSOW, OF LEAVENWORTH, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 452,000, dated May 12, 1891.

Application filed January 12, 1891. Serial No. 377,511. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH WUSSOW, of Leavenworth, Leavenworth county, Kansas, have invented certain new and useful
5 Improvements in Automatic Car-Couplers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to car-couplings; and
10 the object of my invention is to produce a simple, strong, and durable coupling mechanism by means of which the cars can be automatically coupled by the act of coming together, and by means of which the cars
15 can be quickly and easily uncoupled without necessitating the entrance of an attendant between the cars.

To the above purposes my invention consists in certain peculiar and novel features
20 of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in
25 which—

Figure 1 is a perspective view of one end of a car-body with my improved coupling applied thereto. Fig. 2 is a vertical longitudinal section of the adjacent ends of two cars with my
30 improved coupling applied thereto. Fig. 3 is a plan view of one of the draw-heads. Fig. 4 is a detached perspective view of one of the links for tilting the coupling-bars. Fig. 5 is a detached perspective view of one of
35 the coupling-bars.

In the said drawings, 1 designates the adjacent ends of two railway-cars, and 10 designates the draw-heads, one of which is suitably mounted beneath the end of each car,
40 midway of the width of the same. On its upper side each of the draw-heads 10 is formed with two cavities 17 and 23, which are arranged parallel with each other, and each of which opens out at the outer end of the draw-
45 head at points opposite from the longitudinal center of said draw-head. The cavity 17 is closed beneath by the solid portion 25 of the draw-head, and is formed at its rear portion with an enlargement 15, while from the rear
50 terminus of this enlargement opens an extension 24, leading rearward from the said

enlargement. The under side of the draw-head is open, with the exception of the portion 25. The inner portion of the draw-head is formed with a vertical channel 9, which is
55 situated directly behind the rear terminus or extension 24 of the cavity 17, and which is designed to receive a curved lifting-link 8, to be hereinafter more fully described. The companion cavity of the draw-head is formed
60 at its rear or inner end with an enlargement 21, and the bottom of both the cavity and its enlargement is closed by the under side of the draw-head. The lifting-link 8, above referred to, is an elongated bar slightly seg-
65 mental in form and having at its lower end an elongated slot 11, for a purpose to be hereinafter explained, and at its upper end with an eye 7.

Upon the end of each car-body, at the lower
70 part thereof, is placed a rock-shaft 3, which extends transversely of the car-body and the ends of which are retained in journal-boxes 2, one of which is located at each side of the car-body. The outer extremities of this rock-
75 shaft are formed each with a crank-arm 4, extending at right angles to the main portion of the rock-shaft and protruding beyond the side of the car-body. Midway of its length this rock-shaft is formed with a crank-arm 5,
80 which extends at an angle of ninety degrees from the crank-arms 4, so that when said arms 4 are vertical the arm 5 is horizontal, as shown. The outer end of the crank-arm 5 is connected to the upper end of the lifting-link
85 8 by a pivot-pin 6, which extends transversely through the outer end of the said arm 5, and also through the eye 7 of the link. The coupling-bar 13 is of flat elongated form, and at one end said bar is provided with a flat
90 spherical enlargement 20. The opposite end of said bar is formed with a flat elongated extension 12, and a flat spherical enlargement 14 is formed at the point of juncture of the bar and its extension.
95

When the parts are in operative position, the coupling-bar lies with its enlargement 14 in the enlargement 16 of the opening or cavity 17, and its body portion lies within the
100 said cavity, the extension 12 of the coupling-bar passing into the slot 11 of the link 8. When the crank-arm 5 is in horizontal posi-

tion, as shown in Fig. 1, the coupling-bar lies horizontally, and in this position the cars are coupled together, as shown in Fig. 2.

In order to uncouple the cars, the attendant 5 grasps one or the other of the handles 4 and pulls it downward and outward away from the car-body, thus depressing the rock-arm 5 and link 8. This causes the outer end of the coupling-bar to rise out of the cavity 23 10 of the opposite draw-head, and the inner end or extension 12 of the coupling-bar is correspondingly depressed by the link 8. The cars are thus uncoupled and can be readily moved apart as desired. With the coupling- 15 bars in the raised position just described the couplings are in condition to be automatically coupled, the shock of meeting of the two cars throwing the coupling-bars downward into the cavities 23 and restoring the rock- 20 shafts 3 to their normal positions.

It will be seen that the described forms of the two cavities of the draw-heads are such as to preserve the utmost solidity of the draw-heads, that the operative connections are very 25 simple in construction and easily manipulated, and that the form of the coupling-bars is such as to unite the utmost compactness and simplicity of construction with the greatest strength.

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

1. An improved automatic car-coupling comprising a draw-head provided on its up- 35 per side with two cavities, each of which

opens out at the front end of said head and the inner end of each of which is formed with a spherical enlargement, and one of which is formed with a rearward extension from its spherical enlargement and has a partially- 40 open bottom, while the opposite cavity has an entirely-closed bottom, substantially as set forth.

2. An improved automatic car-coupling comprising a draw-head having two cavities 45 opening out of its front end and top and having each an enlargement at its rear end, one of said cavities being entirely closed at its bottom and the other being partially open at its bottom and having an elongated extension 50 from its enlargement, an opening extending vertically through the rear part of the draw-head and communicating with the interior of the partially-open-bottomed cavity, a link having a slotted lower end and 55 working through said vertical opening, and a rock-shaft extending transversely of the car-body and having crank-arms extending at the sides thereof and also a crank-arm at its middle pivotally connected to the upper 60 end of the slotted bar, and a coupling-bar having two enlargements of its body portion and an elongated extension projecting into the slot of the link, substantially as set forth.

In testimony whereof I affix my signature in 65 presence of two witnesses.

FRIEDRICH WUSSOW.

Witnesses:

JOE HELLAR,
GEO. G. THORPE.