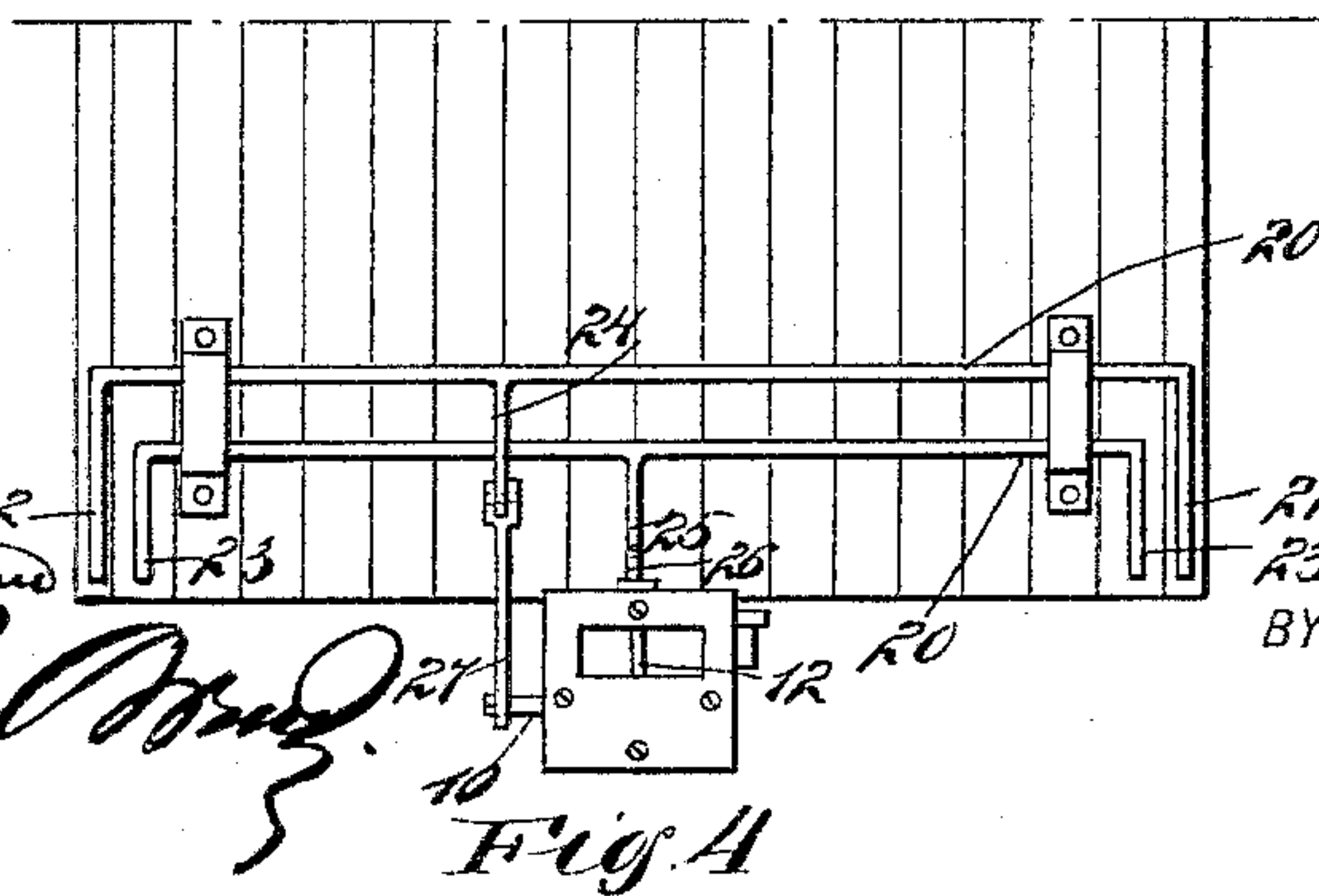
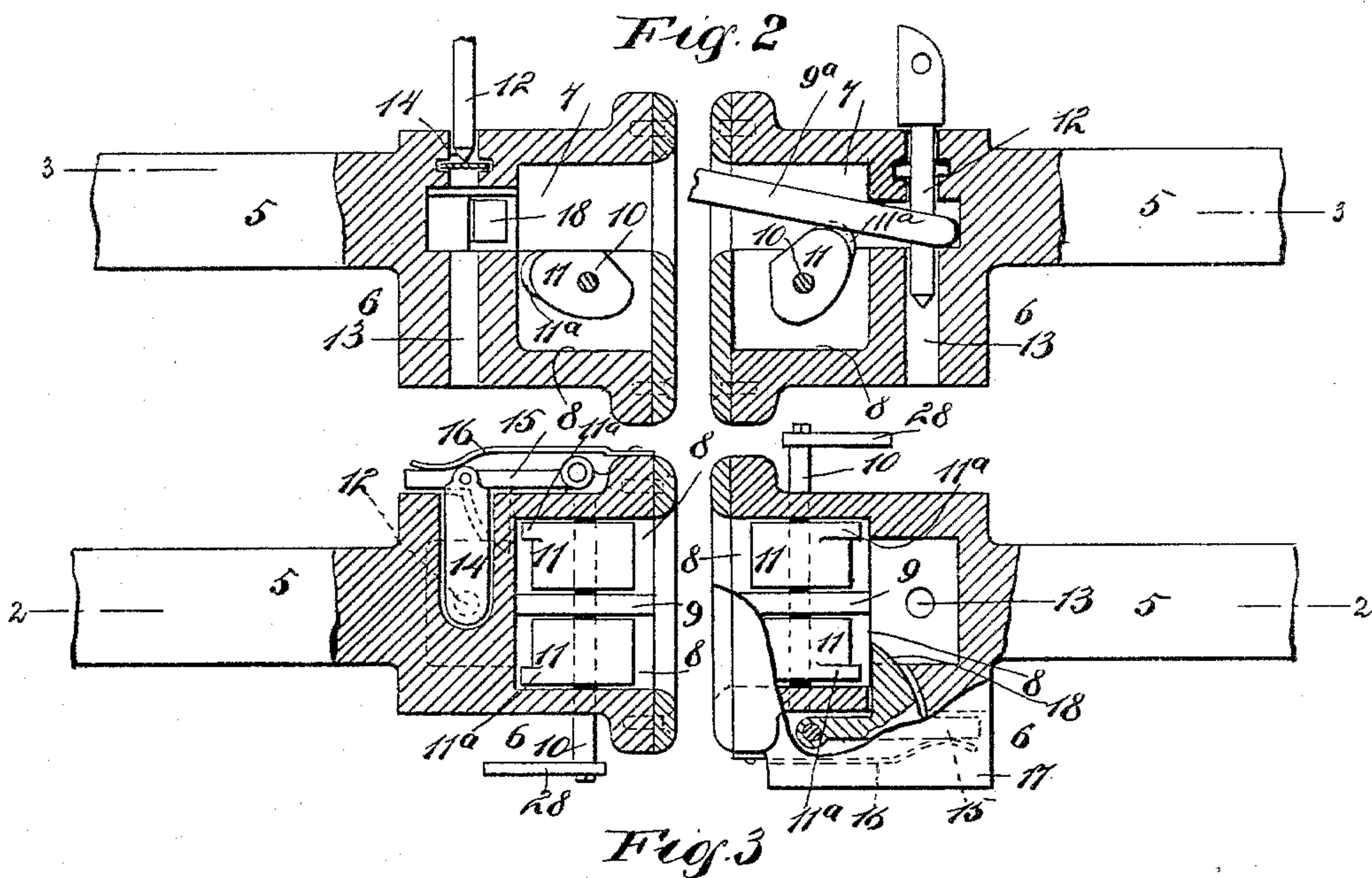
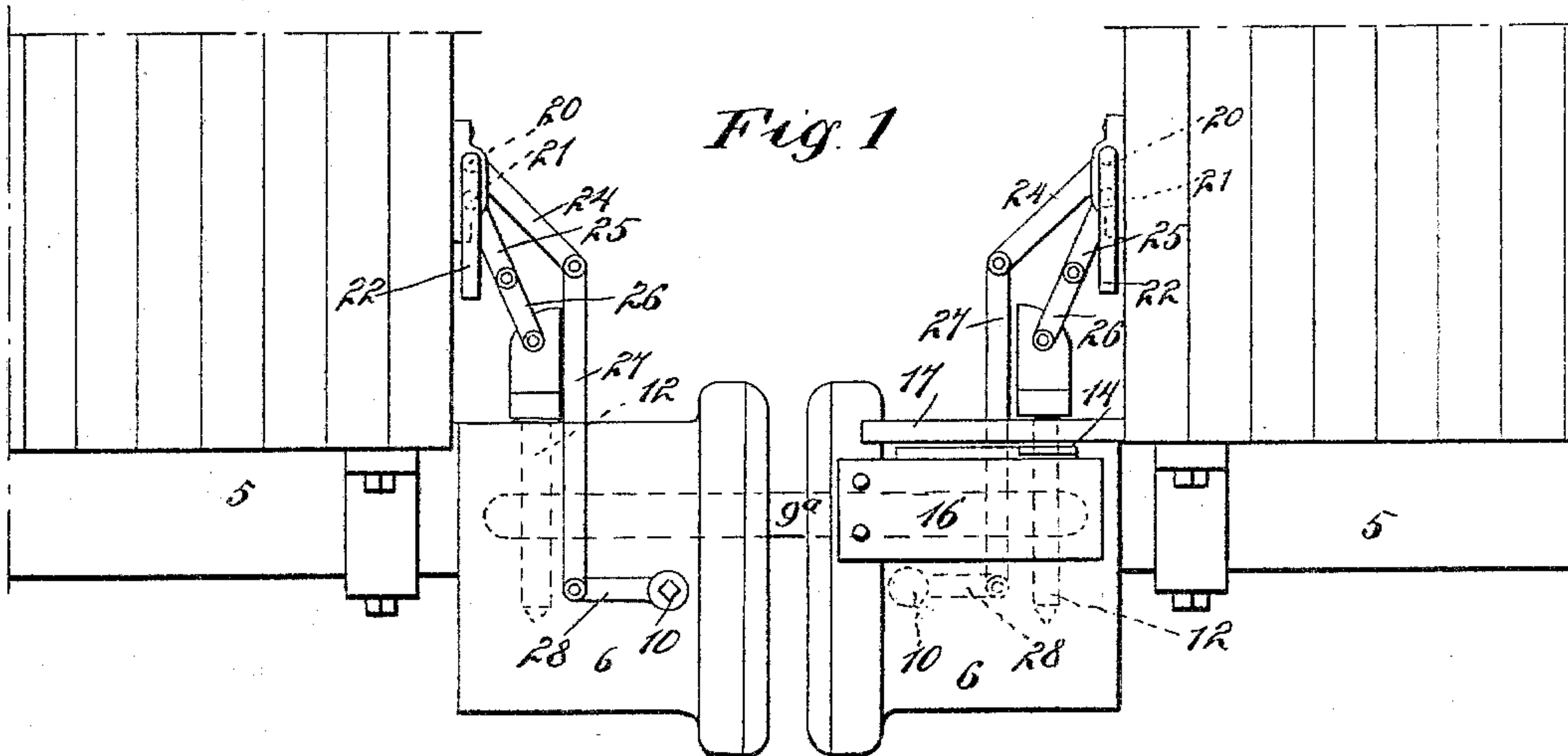


(No Model.)

C. DUTCHBURN.  
CAR COUPLING.

No. 597,575.

Patented Jan. 18, 1898.



WITNESSES:  
*John A. Simpson*  
*Sam B. [Signature]*

INVENTOR  
*C. Dutchburn*  
BY *[Signature]*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

CHRISTOPHER DUTCHBURN, OF HIGHFIELD, CANADA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 597,575, dated January 18, 1898.

Application filed May 12, 1897. Serial No. 636,194. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTOPHER DUTCHBURN, of Highfield, in the Province of Ontario and Dominion of Canada, have invented a new and Improved Car-Coupler, of which the following is a full, clear, and exact description.

This invention is a car-coupler of that class in which pins and links are used and in which the pins and links are operated through the medium of rock-shafts mounted at the ends of the cars and extending to the sides thereof to avoid the necessity of trainmen passing between the cars.

This specification is the disclosure of one form of my invention, while the claims define the actual scope of the conception.

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

Figure 1 is a side elevation of the invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 3. Fig. 3 is a sectional view on the line 3 3 of Fig. 2, and Fig. 4 is an end elevation of the invention.

The draw-bars 5 carry the coupling-heads 6, which have throats 7 and cavities 8, subjacent to the throats, the cavities 8 being divided by a vertical partition 9. Extending transversely through each coupling-head is a shaft 10, each shaft carrying two lifting-cams 11, fixed on the shafts and respectively located within the cavities 8. The cams 11 serve to lift the links, as indicated in Fig. 2, which lifting of the links is necessary to the coupling operation.

Pins 12 slide vertically through passages 13, respectively, formed in the rear of the coupling-heads. Each coupling-head has a horizontally-sliding plate 14, crossing the passages 13 of the coupling-head and serving to support the pins 12, as shown in Fig. 3. The plate 14 of each coupling-head is pivoted to a wing 15, hinged to one side of the coupling-head 6 and pressed against the coupling-head by a leaf-spring 16. Each coupling-head has a ledge 17 overhanging the wing 15 and spring 16, whereby to protect the same. Each wing 15 has a cam-shaped lug 18 formed on its inner face and projecting through an orifice in the side of the coupling-head. These lugs 18 extend into the respective throats 7. In

operation the pins 12 are supported out of the throats 7 by the plates 14. The link 9<sup>a</sup>, when projected into one of the throats, engages the lug 18 thereof and pushes outward the wing 15, which in turn withdraws the corresponding plate 14 and allows the pin 12 to drop into engagement with the link 9<sup>a</sup>.

Mounted at each end of the car are two rock-shafts 20 and 21, having at their ends crank-arms 22 and 23. An intermediate portion of each crank-shaft also has a crank-arm 24 and 25. The crank-arm 25 is pivoted to a link 26, in turn connected to the pin 12 of the adjacent coupling. The crank-arm 24 is pivoted to a link 27, which is pivoted in turn to a crank 28, fixed on the shaft 10 of the adjacent coupling. By these means the cams 11 and the pins 12 may be manipulated readily without requiring the trainmen to pass between the cars. Each cam 11 has a rib or flange 11<sup>a</sup> at its outer upper corner. Between these ribs in each pair of cams the links 9<sup>a</sup> lie.

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

1. The combination with a coupling-head having a throat and a ledge extending out from one side of the throat, of a plate sliding horizontally through the coupling-head and serving to support a pin out of the throat, a wing attached to the plate and having a lug projecting into the throat the wing being located beneath the ledge of the coupling-head, and a spring pressing the wing inward and also located beneath the ledge.

2. In a car-coupling, the combination of a coupling-head having a vertical passage run therethrough to receive the pin, and having a horizontal passage intersecting in the vertical passage, a plate sliding through the horizontal passage and capable of supporting a pin in the vertical passage, a wing pivoted to the outer side of the coupling-head and attached to the plate, and a spring pressing the wing to hold the plate inward, the coupling-head having a ledge overhanging the wing to protect the same.

CHRISTOPHER DUTCHBURN.

Witnesses:

GEO. W. GROTE,  
JAMES BOWDEN.