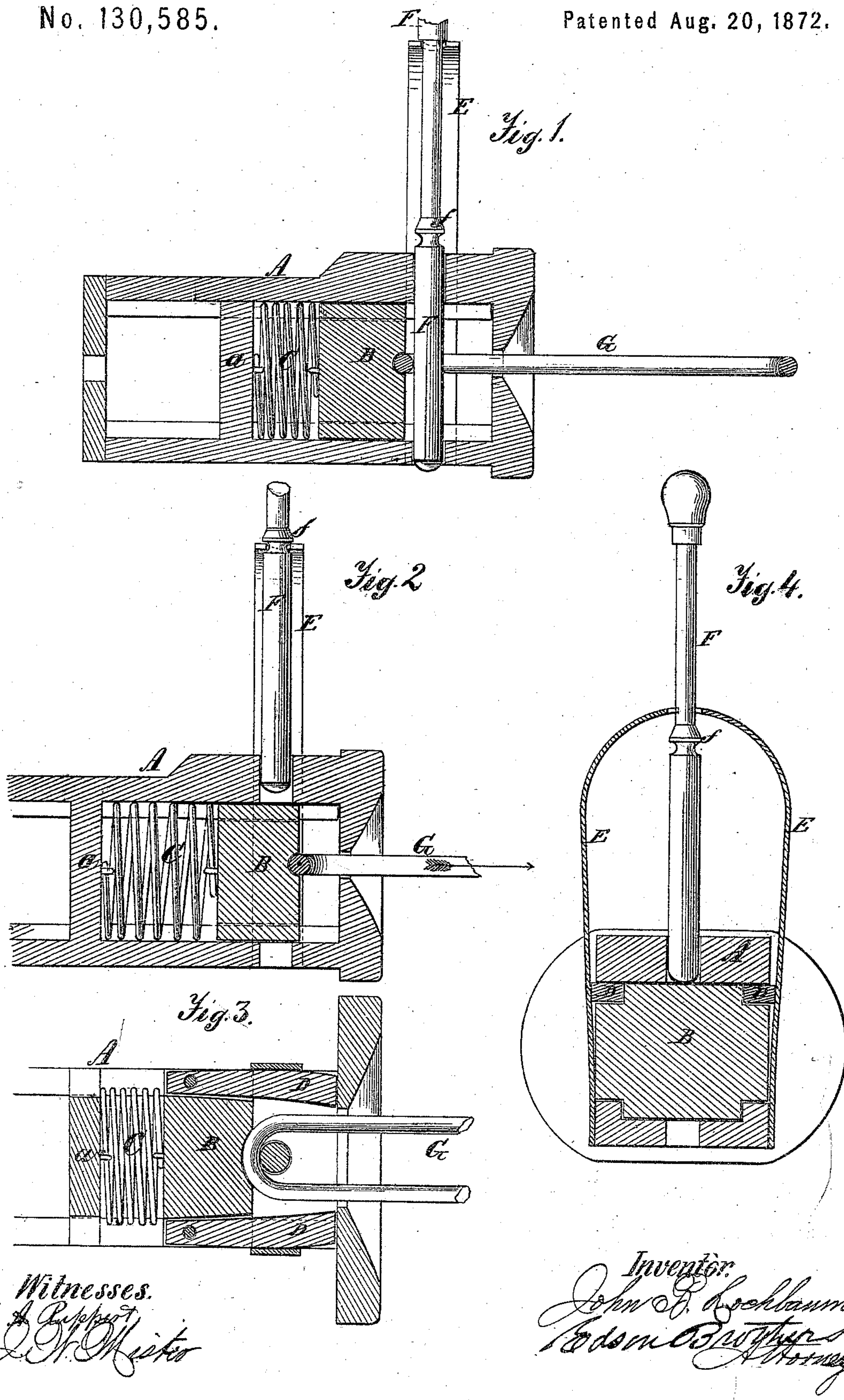
J. B. LOCHBAUM.

Improvement in Car-Couplings.

No. 130,585. Patented Aug. 20, 1872.



Witnesses.

Inventor.

UNITED STATES PATENT OFFICE.

JOHN B. LOCHBAUM, OF CHAMBERSBURG, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **130,585**, dated August 20, 1872.

Specification describing certain Improvements in Car-Couplings, invented by JOHN B. LOCHBAUM, residing in Chambersburg, county of Franklin and State of Pennsylvania.

In the annexed drawing, Figure 1 represents a longitudinal vertical section of my improved coupling, the pin thereof being shown as entering and holding the coupling-link within the buffer. Fig. 2 is a similar view of the same, representing the pin as withdrawn from its link or in an elevated position, and in which position it is held until the link is withdrawn from the buffer by springs, after which the follower will move forward, and, by intermediate levers, cause the former springs to release their hold from the pin and allow the latter to fall upon the follower, in readiness to enter the link when the said follower is pushed from under it by the said link. Fig. 3 is a longitudinal horizontal section thereof, showing the levers through which the follower, when thrown forward, causes the upright springs to release their hold from the coupling-pin; and Fig. 4 is a vertical transverse section of the same, exhibiting the pin resting upon the follower and released from its upright springs.

Similar letters of reference in the several figures refer to corresponding parts.

This invention relates to that class of car-couplings in which the operation of coupling is automatically performed, and to this end a follower acted upon by a coiled or spiral spring is used in connection with springs clasping the coupling-pin and levers interposed between the said follower and the last-named springs; and, further, in the novel construction of the coupling-pin, substantially as hereinafter more fully set forth and specifically pointed out in the claim.

To enable others to make and use my invention, I will proceed to describe it.

In the annexed drawing, A refers to the buffer of a railroad car, within which buffer is placed a follower or block, B, to the rear end of which is attached the forward end of a coiled or spiral spring, C, the opposite or rear end of which spring being fastened to a partition, *a*, within the said buffer, or to its rear end. D D refer to two horizontal levers, which are pivoted, at their smaller ends, to the lower side of the upper interior part of the buffer A, as shown in Figs. 3 and 4, the forward ends of the said levers being made to extend inwardly toward each other in such a manner as that when the follower B is thrown forward by its spring C they will be moved laterally, and, consequently, throw the springs E E bearing against them apart, and allow the pin F to be released therefrom and drop upon the said follower, in readiness to enter the coupling-link G after the said follower has been pushed away from under the pin by the said link. E E refer to two upright springs, the lower ends of which are fastened to the buffer A, and their upper ends made to approach each other, and so recessed as that when they are brought in contact an opening will be provided, up through which the coupling may pass, as shown in Figs. 1, 2, and 4, and be retained in an elevated position when the swell or shoulder *f* upon the said pin is above the said springs E and the latter are not expanded or separated. F is the coupling-pin, with an annular swell or shoulder, *f*, constructed upon it at or near its center, and which passes down through the buffer A so as to receive the coupling-link G. Between the head of this pin and its swell *f* it is reduced, or of less thickness than that portion thereof below the said swell, so as that, after its swell *f* has passed below the springs E, which will immediately close and lessen the size of the opening between their upper ends, its upper portion will be of such a size in diameter as to pass down readily through said opening and allow the pin to perform its office of coupling the cars.

When it is desired to uncouple the cars, simply withdraw the pin F from the buffer A and raise it to such a height as that the swell *f* upon said pin shall rest above the curvature of the springs E, when the pin will be clamped by the said springs and there retained until the coupling-link G has been withdrawn and the follower thrown forward under said pin. At this movement the levers D D will be thrown out by the follower B in such a manner as to be brought in contact with the springs E and throw them apart, whereby the pin F will be released therefrom and allowed to fall upon the follower B, in readiness to enter the link when again thrust into the buffer, which will push the follower back from under the said pin.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. The coupling-pin F, having a swell or shoulder, *f*, and reduced between said shoulder and its head, as described, substantially as and for the purpose set forth.

2. In combination with the follower B, levers D D, and springs E E, the coupling-pin F, constructed substantially as shown and described, as and for the purpose specified.

3. The follower B, spring C, levers D D, and springs E E, combined and arranged to operate substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name in presence of two subscribing witnesses.

JOHN B. LOCHBAUM.

Witnesses:
C. M. DUNCAN,
NEWTON MCGOWAN.