

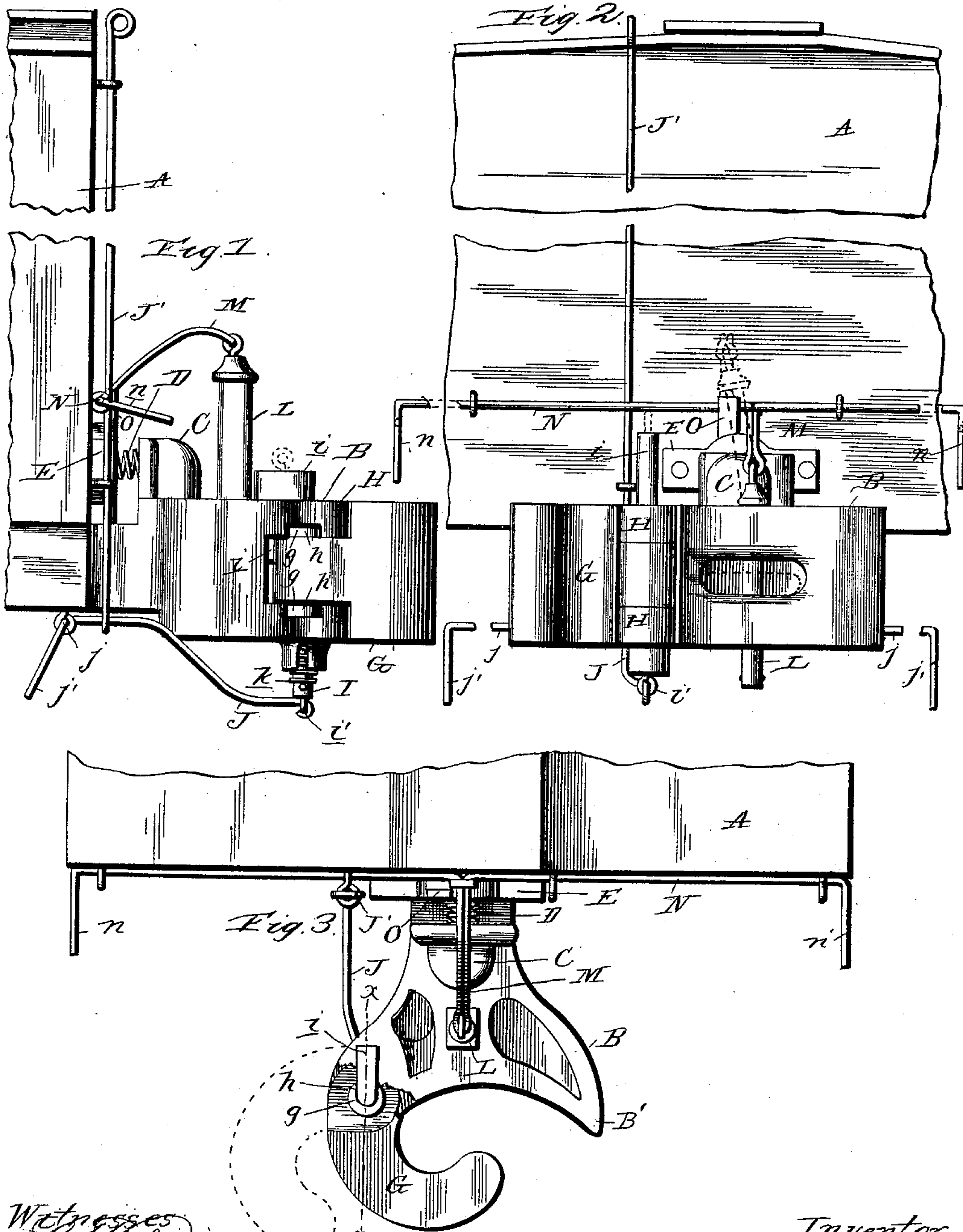
(No Model.)

2 Sheets—Sheet 1.

P. BROWN.
CAR COUPLING.

No. 434,763.

Patented Aug. 19, 1890.



Witnesses
Chas. Raeder
John Moore

Inventor
Perry Brown
By *J. W. Robertson*
Attorney

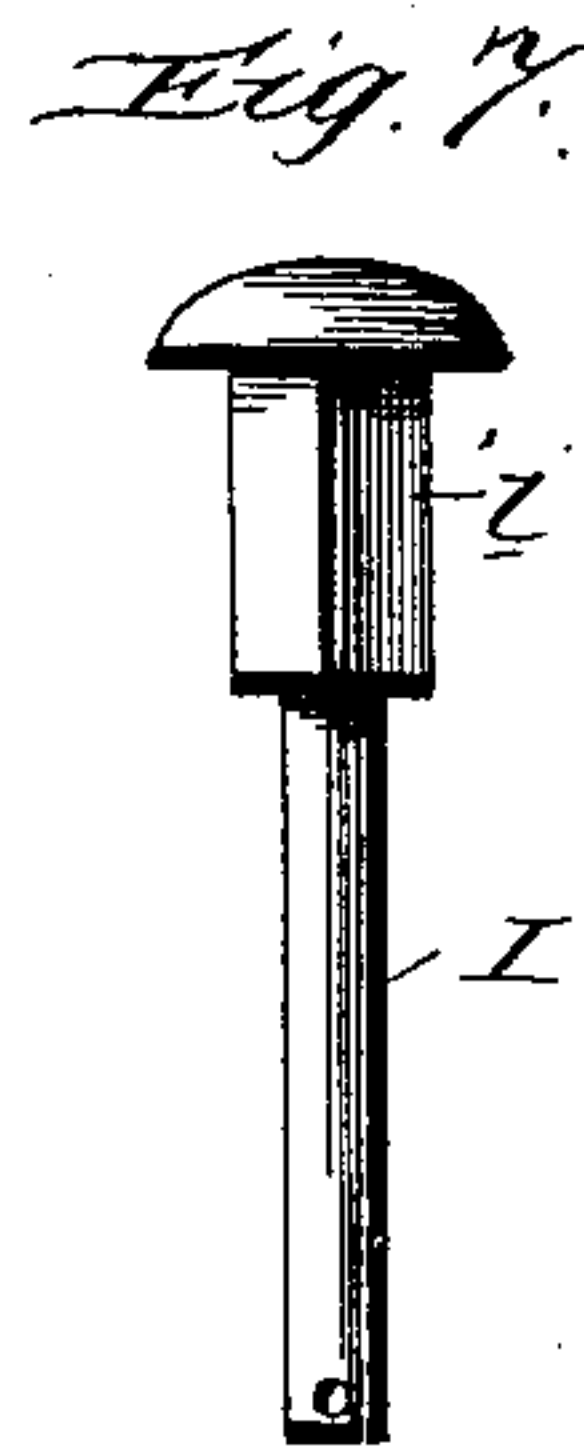
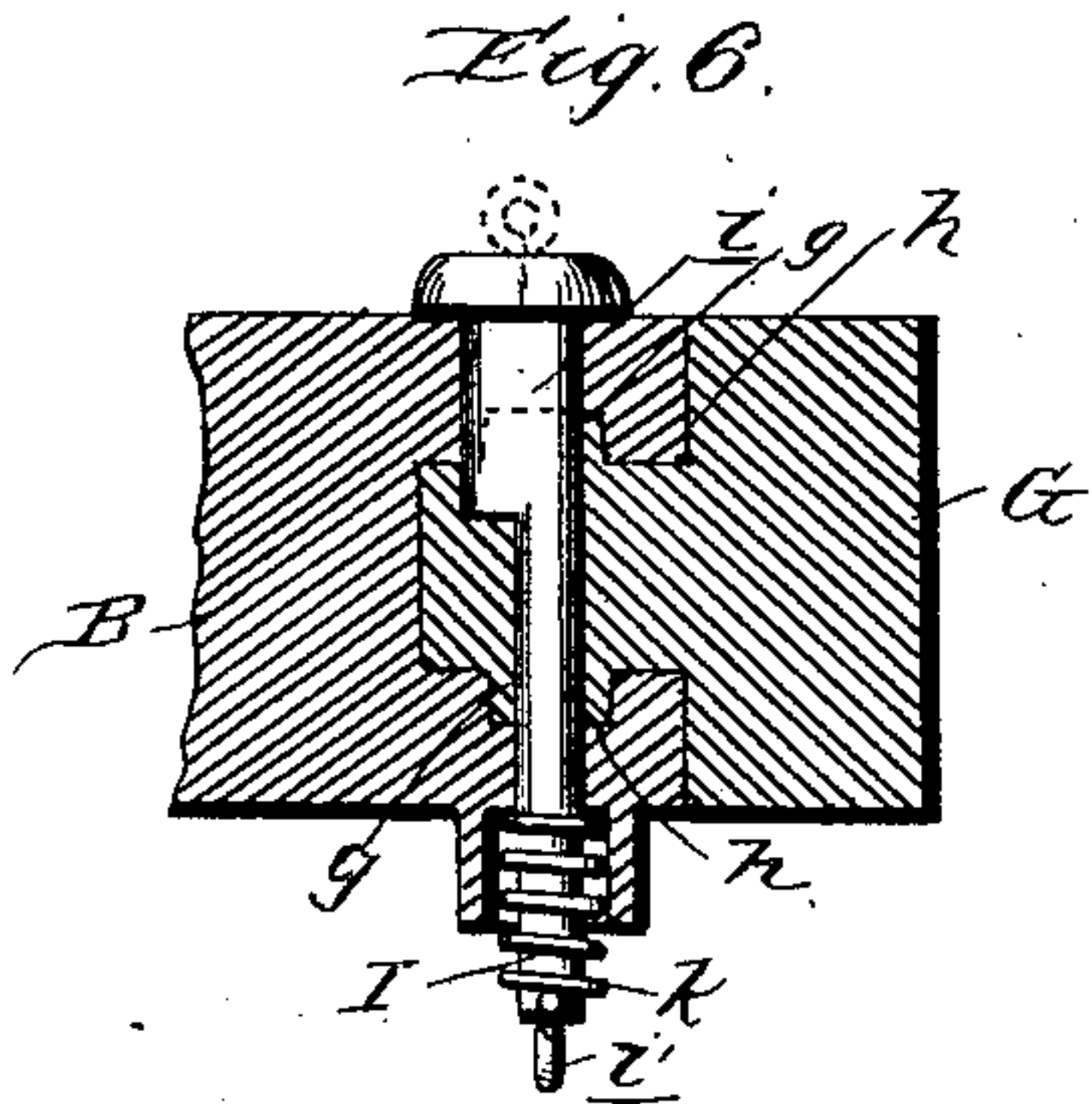
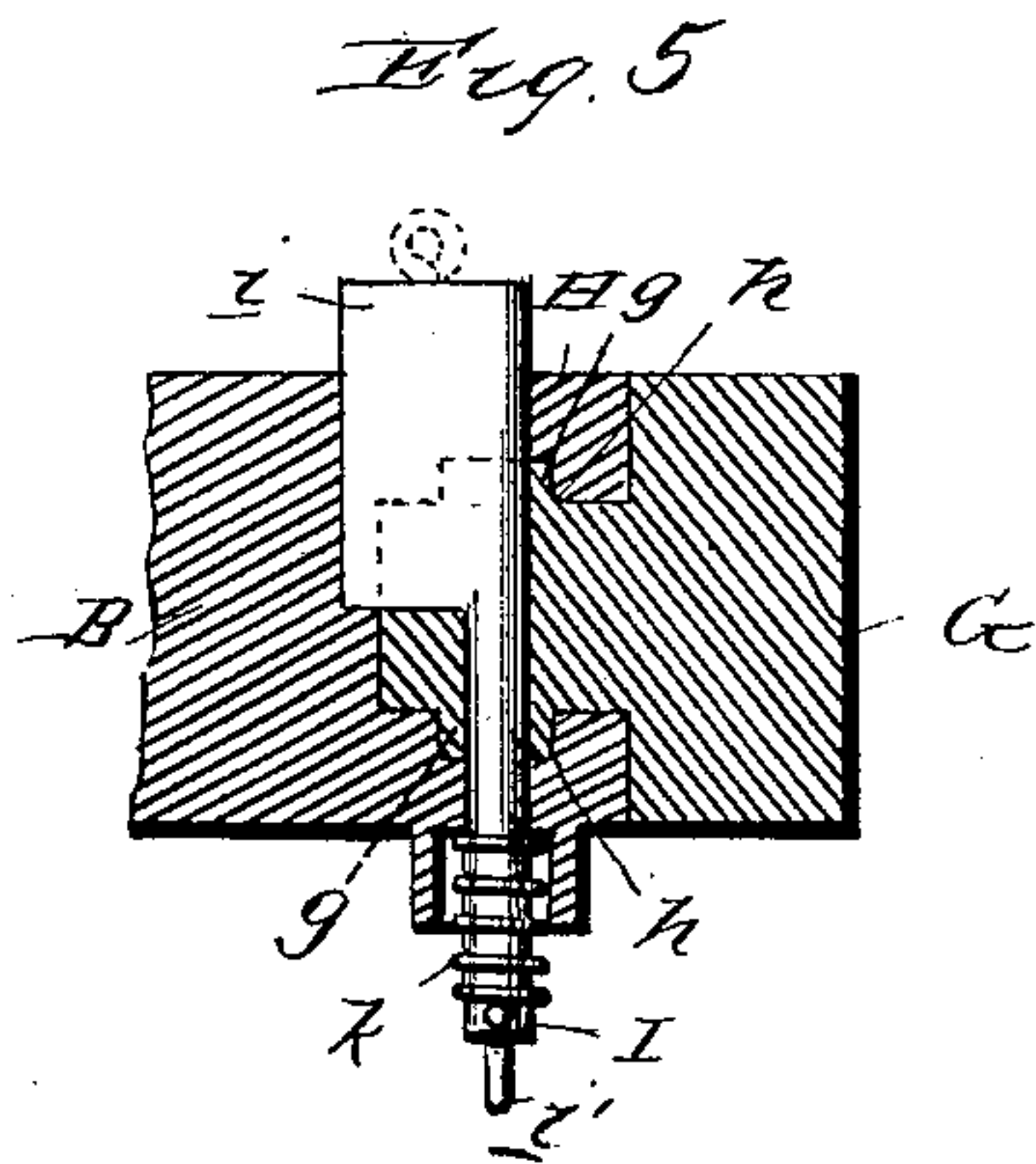
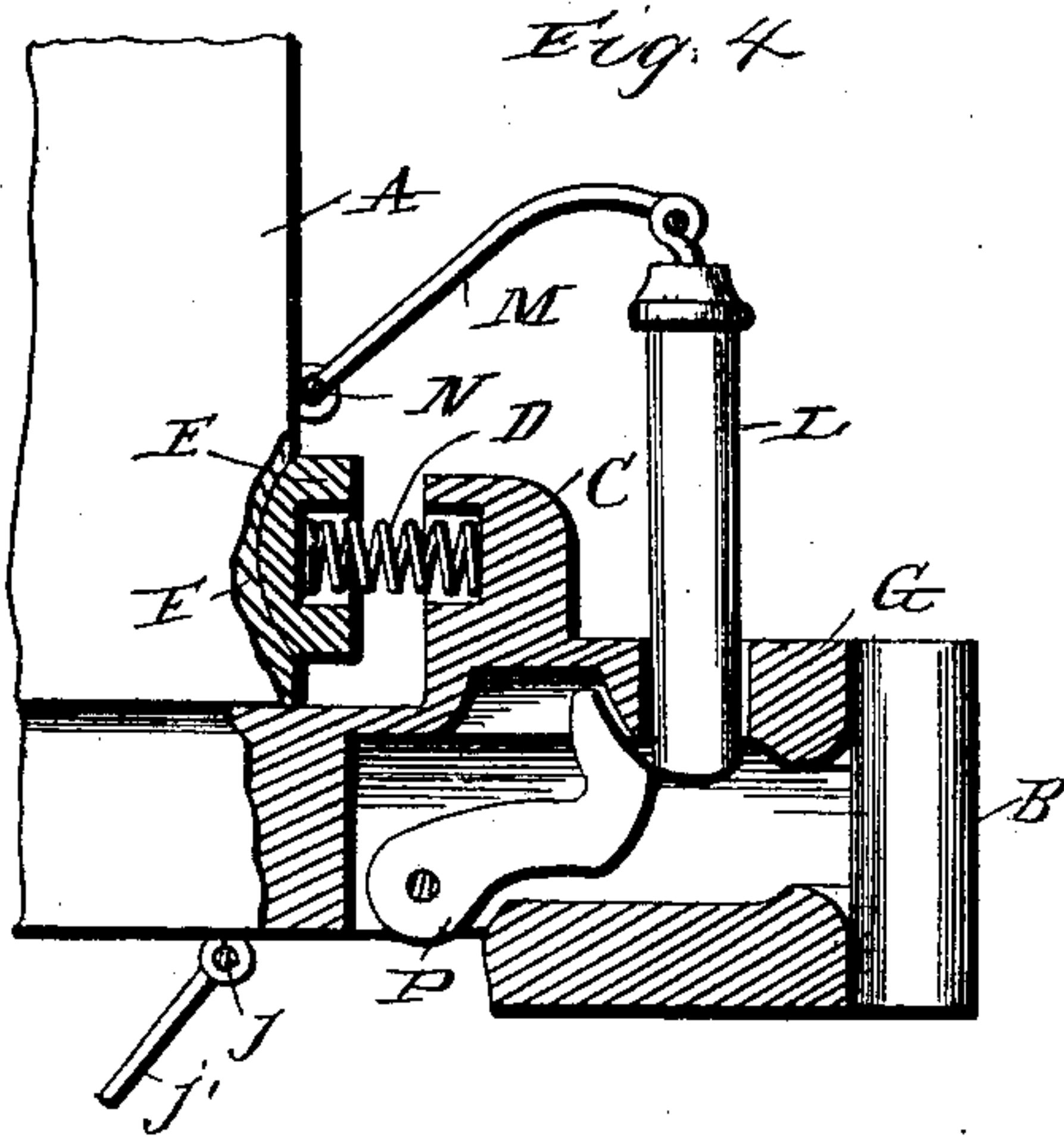
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2 Sheets—Sheet 2.

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Chas. A. Haeder
John W. Moore

Inventor
Perry Brown
By
T. J. W. Robertson
Attorney

UNITED STATES PATENT OFFICE.

PERRY BROWN, OF LOUISVILLE, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 434,763, dated August 19, 1890.

Application filed December 4, 1889. Serial No. 332,566. (No model.)

To all whom it may concern:

Be it known that I, PERRY BROWN, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This improvement relates to that class of car-couplings termed "twin-jaw couplings;" and the invention consists in the peculiar construction, arrangement, and combinations of parts, hereinafter described, and then definitely claimed.

15 In the accompanying drawings, Figure 1 shows a side view of the end of a car provided with my coupling. Fig. 2 shows an end view of the same. Fig. 3 shows a plan of the same; Fig. 4, a central longitudinal vertical section of the coupling; Fig. 5, a vertical section through the line xx on Fig. 4; Fig. 6, a similar section with a modified form of pin; Fig. 7, another form of locking-pin.

25 Referring now to the details of construction in the drawings, A represents the end of the car, and B the coupling, which may be attached in any desired manner. This coupling is preferably provided with a lug C, which is hollowed out to receive one end of a spring D, whose other end is set in a recess in a casting E, attached to the "dead-wood" F or any convenient part of the car.

30 The coupling is of that class commonly known as the "Janney" coupling, in which there is a clutch, as G, and a horn or projection B' to prevent the coupling moving sideways and thus becoming unlocked, and is provided with a pin and a link in addition to the clutches normally employed.

40 I will first describe the construction of the clutch and the manner of securing the same in its locked position and afterward the construction of the link-and-pin connection.

45 The essential feature of my invention is the making of the clutch G without any locking-arm, whereby more room is obtained for the link-and-pin coupling. I prefer to make the clutch with projecting hubs g at top and bottom, which fit into recesses h in the ears H, forming part of the coupling, by which means

much of the strain is removed from the pin I when the coupling is in use. The lower part of the pin I is round, so as to allow the clutch to turn on it when it (the pin) is raised; but its upper part i is oblong in shape, so as to fit into recesses cut or formed in the coupling and upper part of the clutch, as shown in Fig. 5.

55 Instead of making the pin in the form shown in Fig. 5, I may make it as shown in Fig. 6, which is very similar to that shown in Fig. 5; but the upper part is not quite so long in cross-section, and so the clutch is not cut through, and it is held entirely by the ear H, while in Fig. 5 the pin acts also in the body of the coupling. In some cases I prefer to make the upper part of the pin square, as shown in Fig. 7, so as to fit in a square hole in the ear. Each of these pins may be considered the equivalent of the others; but I prefer that shown in Fig. 5.

60 The lower end of the pin is preferably formed with an eye i' to receive an arm J, which is connected with a shaft j , running from one side of the car to the other and provided with handles j' , by which means the pin I may be raised, and when raised the clutch will swing on the pin, as shown in dotted lines in Fig. 3. Instead of having the eye on the bottom of the pin it may be at the top, as shown in dotted lines in Fig. 1; but I prefer to have it at the bottom, as it prevents the accidental displacement of the pin. For freight-cars I prefer to attach a vertical rod J' to the arm J, so that the cars may be uncoupled from the top. The lower ear h is preferably formed with a recess in its under side to receive a spring k , which will aid the weight of the pin in forcing the latter downward; but this may be dispensed with.

65 As before stated, this coupling is designed so as to be used either with a corresponding coupling on another car or with an ordinary link, which is coupled by means of a pin L, preferably suspended from an arm M, connected with the shaft N, having handles n at its ends, by which the pin may be lifted, as desired, to uncouple the car when the ordinary link is used. At O is shown an upwardly-projecting lug, which is normally not in use; but should it be desired to prevent the cars

from coupling a slight endwise movement of the shaft N will push the arm M over the top of the lug O, as shown in dotted lines in Fig. 2, and thus the pin will hang from the arm and cannot descend.

When it is desired to couple the cars with an ordinary link the arm should be as shown in full lines in Fig. 2, and with the pin resting on a pivoted dog P, (see Fig. 4,) so that when the link passes into the mouth of the coupling it will strike the dog P and the pin will then fall through the link and thus couple the cars in a manner well understood.

By the use of the recesses *h* opening at the side of the ears, the projecting hubs *g* on the clutch, and a pivotal pin, the clutch can be slipped in from the side and retained in place by the pin and yet have the advantage of the strength of the hubs added to that of the pin, as the strain on the hubs on the ears is toward the front of the recesses or ears and not side-wise.

By the construction above set forth I not only leave more room for the link when coupling with an ordinary link, but I dispense with the usual locking device generally used with these couplings, and, moreover, I make very strong and convenient couplings that can be coupled or uncoupled with perfect safety from either side or the top of the car.

What I claim as new is—

1. The combination, in a coupling, of a swinging pivoted clutch and a pivotal pin therefor having its shank of different diameters in different portions of its length constructed to secure the clutch in the locked position, substantially as described.

2. The combination, in a coupling, of a clutch and a pivotal pin therefor having its lower part round and its upper part polygonal, whereby the clutch will be locked when the pin is down, substantially as described.

3. The combination, in a twin-jaw coupling, of a clutch and a pivotal pin having its lower part round and its upper part broadened out to engage recesses in the coupling and clutch

to prevent the latter turning on the pin, substantially as described.

4. The combination, in a twin-jaw coupling, of a clutch, a pivotal pin therefor constructed to secure the clutch in a locked position, and means, as the arm J, for raising the pin to unlock the clutch, substantially as described.

5. The combination, in a twin-jaw coupling, of a clutch, a pivotal locking-pin therefor, an arm J, connected to the pin, shaft *j*, carrying said arm, and the handles *j'*, connected to the shaft, substantially as described.

6. The combination, in a coupling, of a clutch having projecting hubs *g* and a pair of ears provided with recesses opening side-wise to admit the hubs, and a pivotal pin, as I, passing through the ears and clutch to retain said clutch in the recesses, substantially as described.

7. The combination, with a coupling having the lug C, of the recessed casting F and spring D, substantially as described.

8. A twin-jaw coupling having ears II II disconnected at their outer ends, and a horn B', in combination with a single-armed clutch having one end pivoted in the ears and constructed and arranged to swing outward clear of the face of the coupling, and provided with a recess within said end to receive a locking device, substantially as shown, and for the purpose specified.

9. A twin-jaw coupling having ears II II disconnected at their outer ends, and a horn B' opposite said ears, in combination with a clutch having a rounded hinged end, a recess for locking the same contained within the curve of said end, and a locking device fitting in said recess, substantially as described, and for the purpose set forth.

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

PERRY BROWN.

Witnesses:

JOS. N. LARRABEE,
JOHN R. DOUGHAN.