

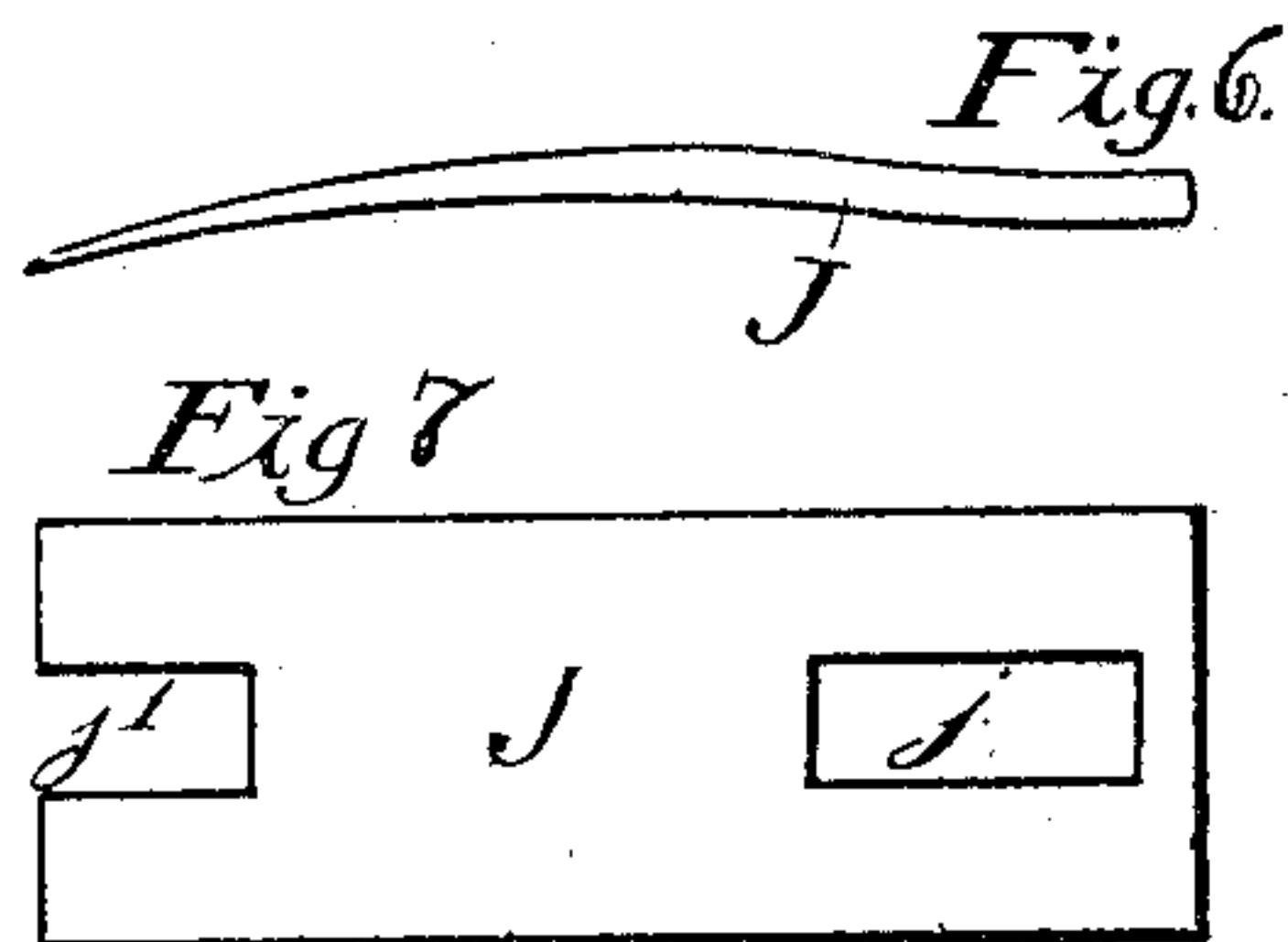
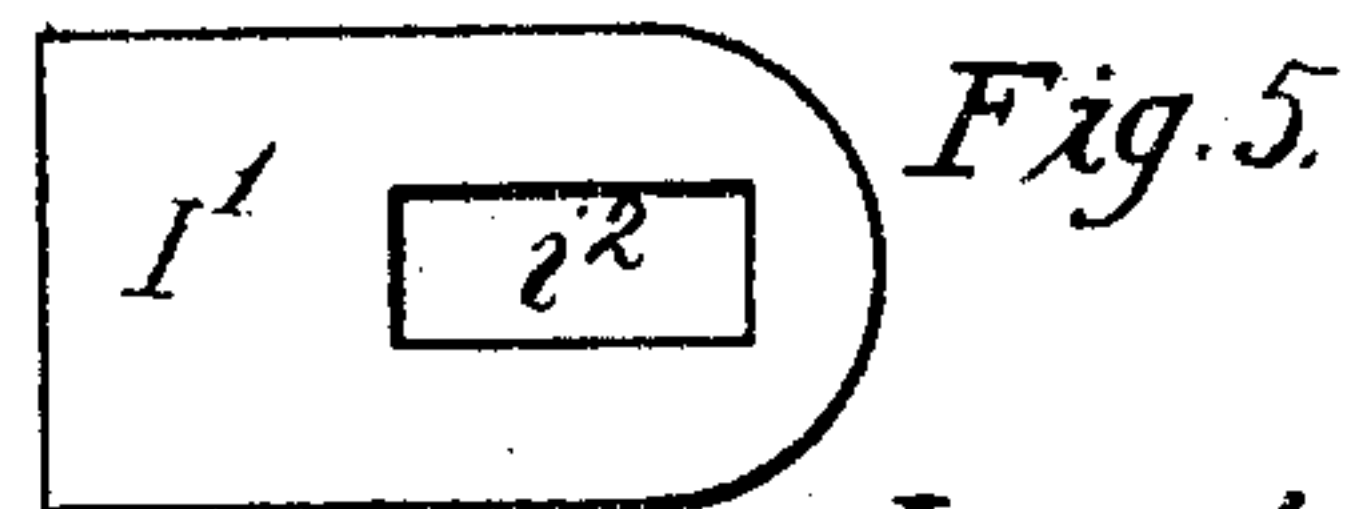
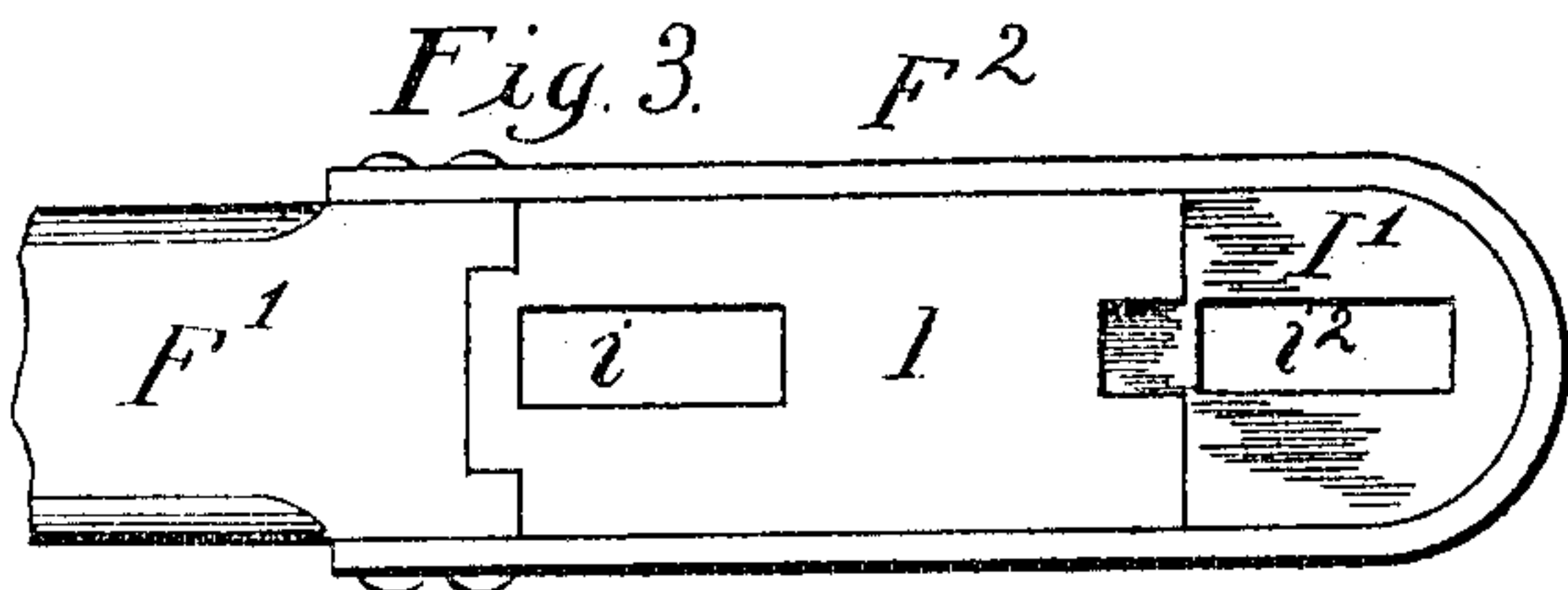
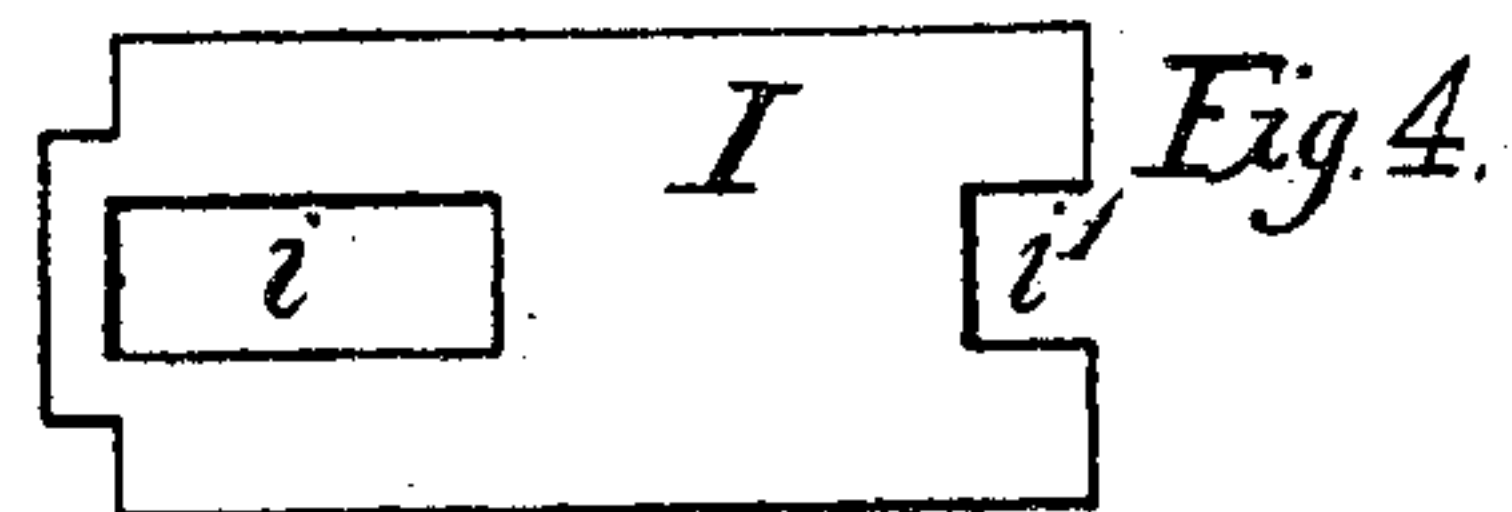
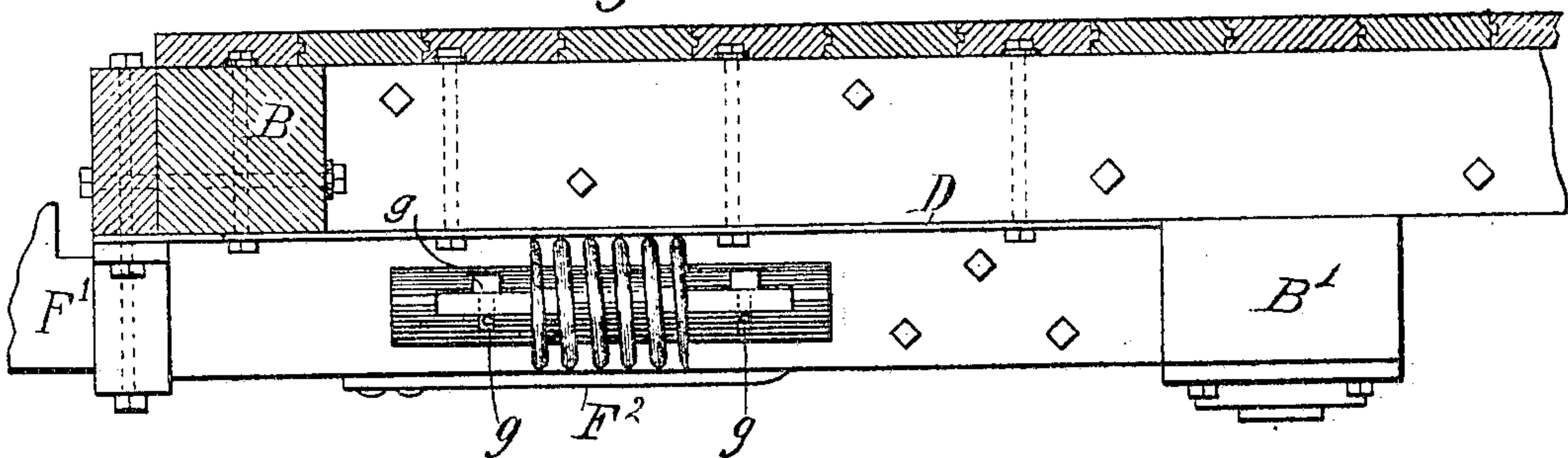
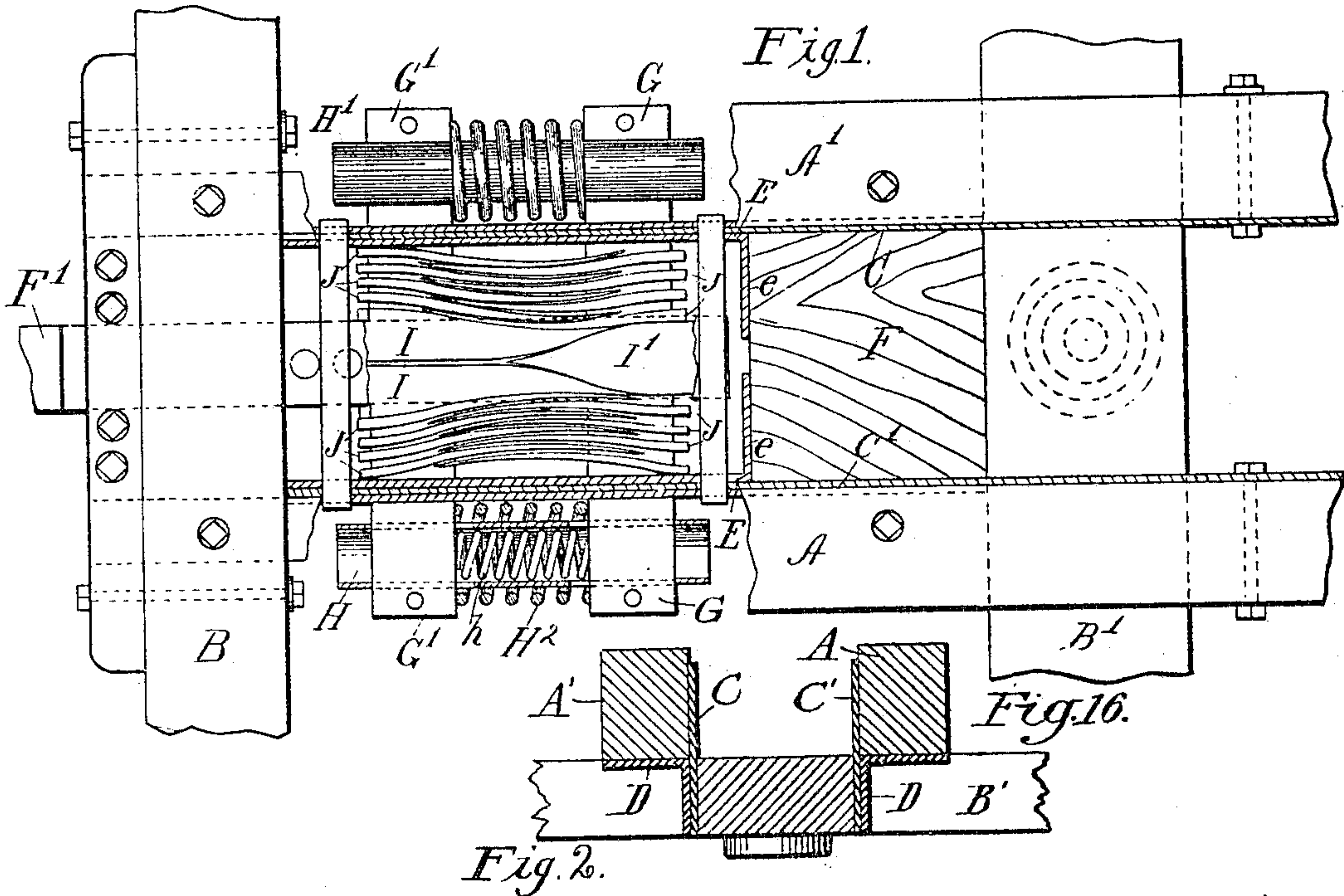
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H. C. PRIEBE.
DRAFT GEAR.

APPLICATION FILED FEB. 2, 1905.

2 SHEETS—SHEET 1.



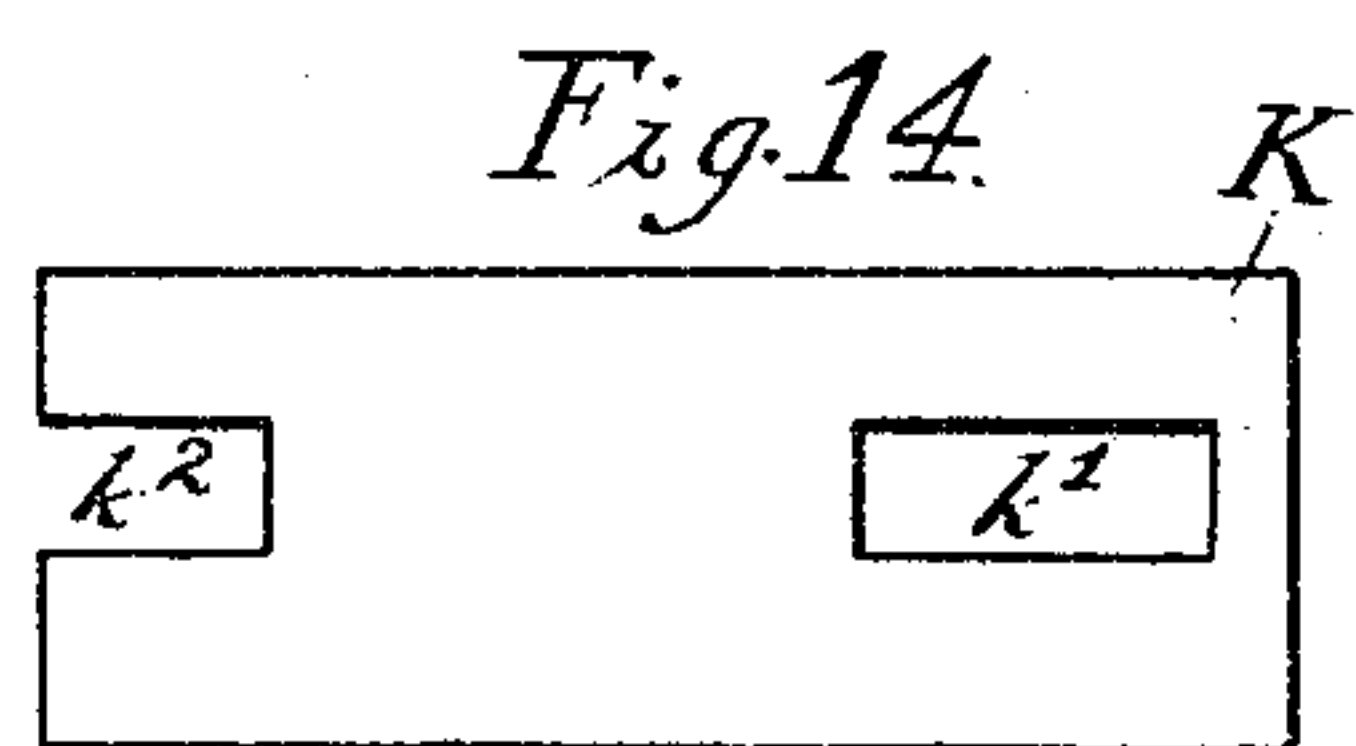
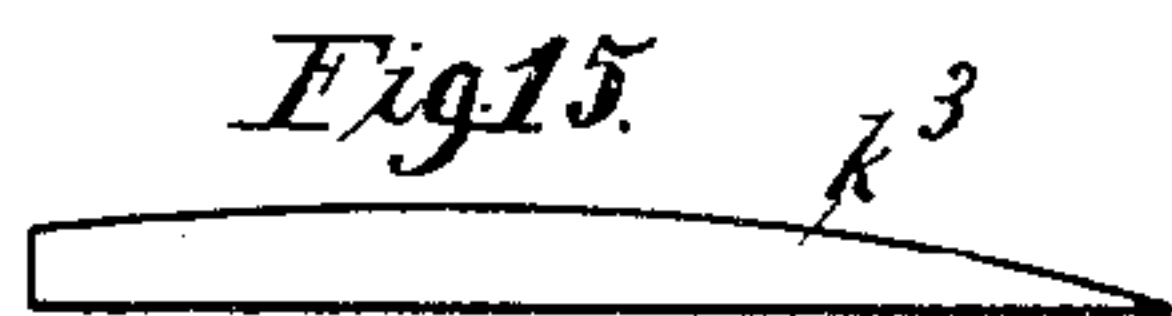
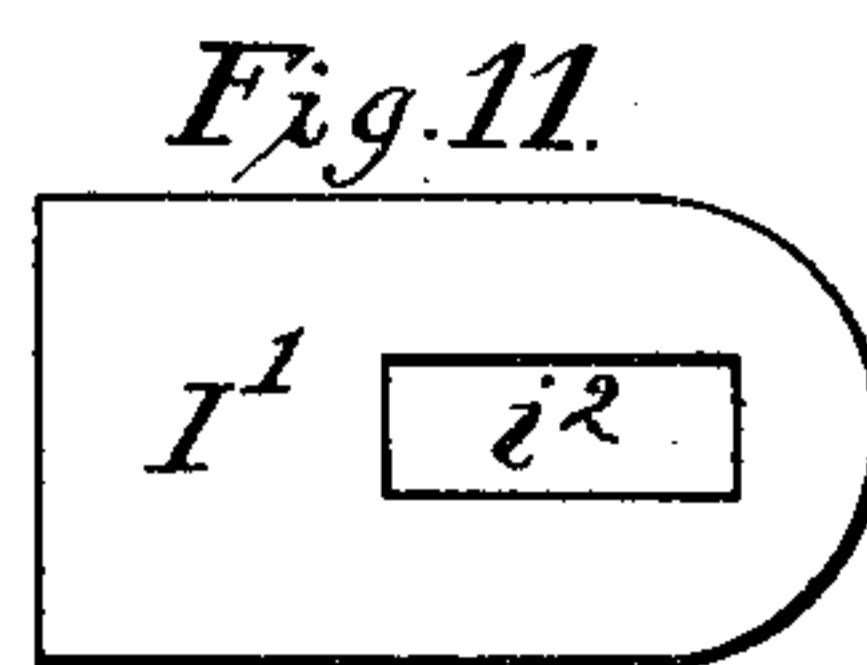
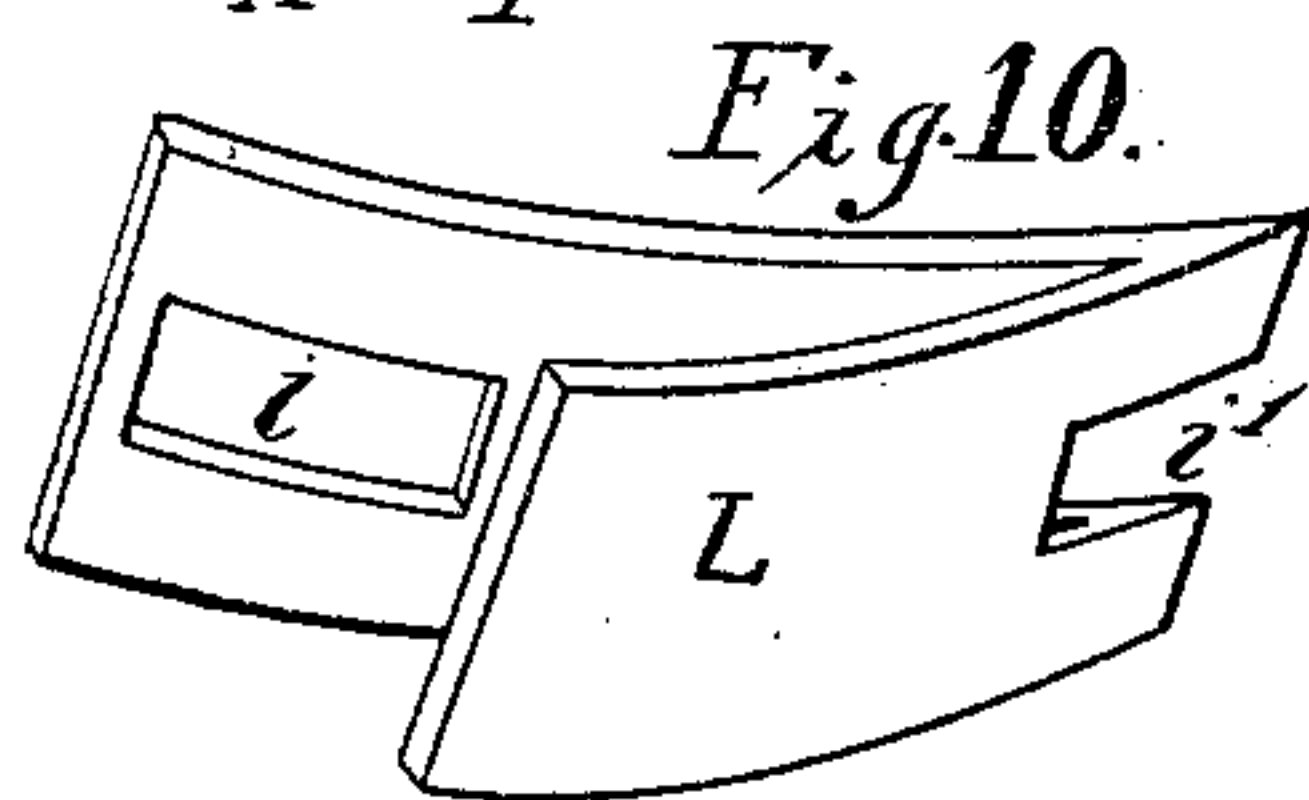
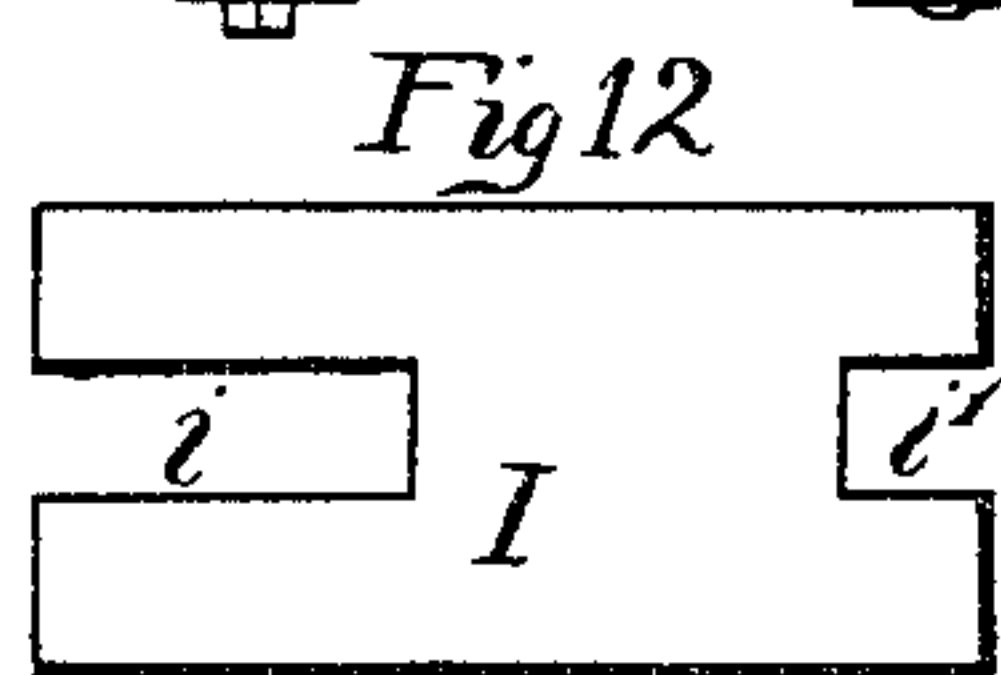
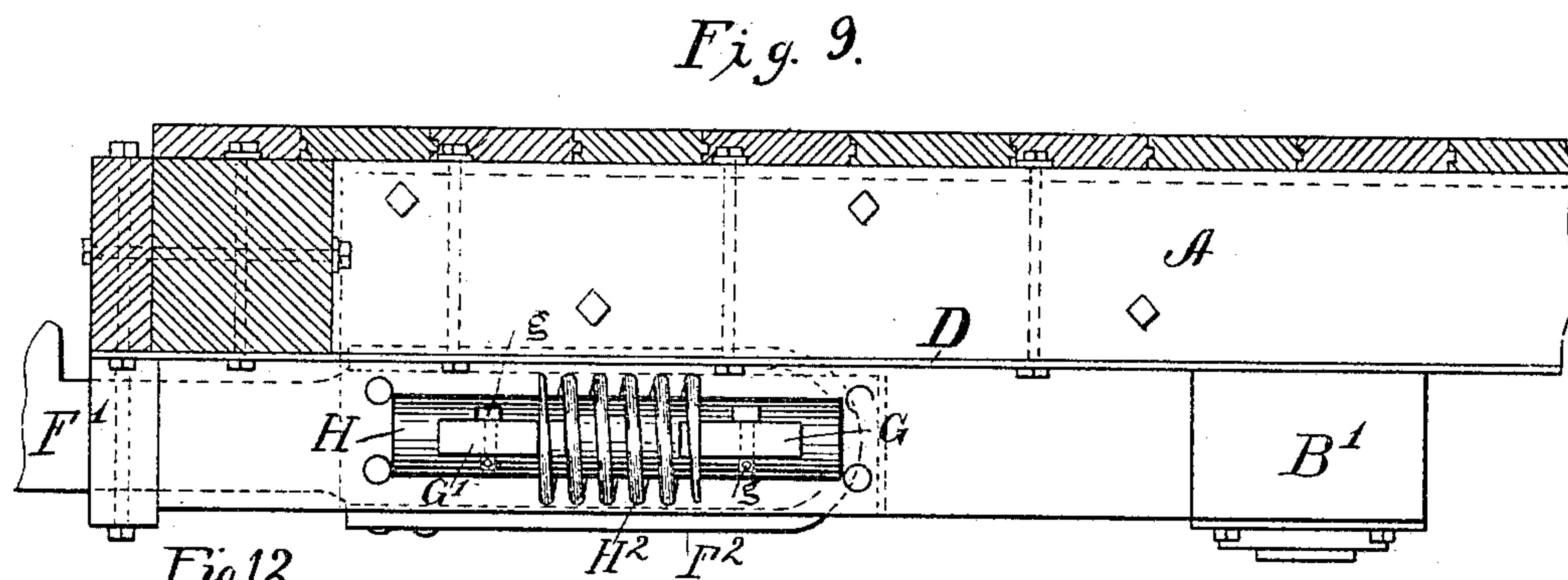
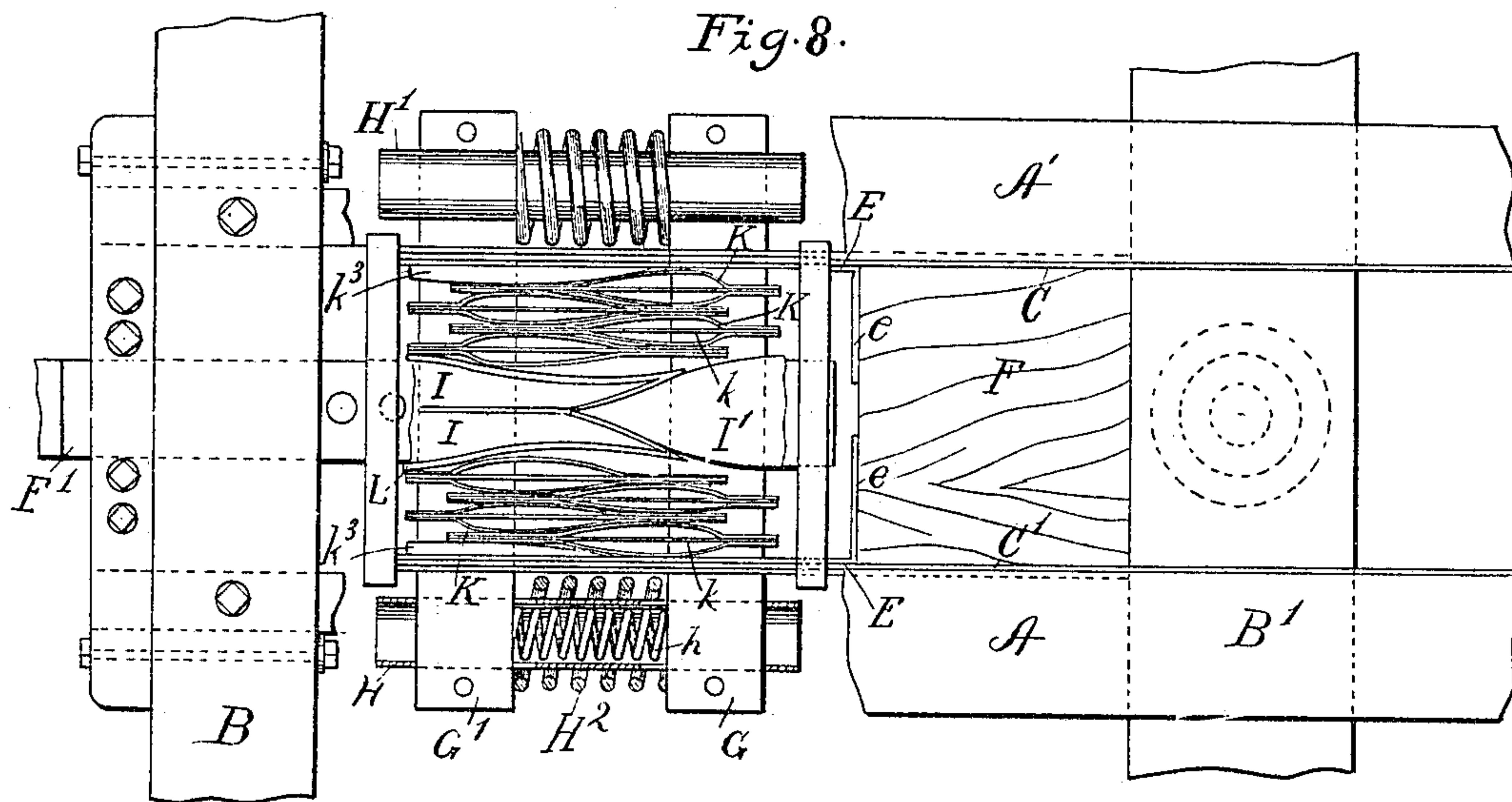
Witnesses:
Chas. F. Bassett
Charles D. Cobb

Inventor
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2 SHEETS—SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

HERMAN C. PRIEBE, OF BLUE ISLAND, ILLINOIS.

DRAFT-GEAR.

No. 799,262.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed February 2, 1905. Serial No. 243,819.

To all whom it may concern:

Be it known that I, HERMAN C. PRIEBE, a citizen of the United States, residing at Blue Island, Cook county, Illinois, have invented a new and useful Improvement in Draft-Gears, of which the following, taken in connection with the drawings, is a description.

My invention has for its object the production of a draft-gear adapted to be used upon railway-cars.

It is an improved and simple construction and as designed is strong and durable and is so arranged as to be readily accessible, if necessary to be repaired, without removing the load from the car.

Other novel features of my invention will be pointed out in the following description and claims.

In the drawings, Figure 1 is a bottom plan view of my draft-gear with the draw-bar yoke removed. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation of the draw-bar yoke. Figs. 4 and 5 are details of the forward and rear wedges. Fig. 6 is an edge view of one of the spring-plates. Fig. 7 is a side view of the same. Fig. 8 is a bottom plan view of a modified form of construction. Fig. 9 is a side view of the same. Fig. 10 is a wedge-casing used in this construction. Figs. 11 and 12 are details of the wedges. Figs. 13 and 14 are edge and side views of the springs used in the construction shown in Fig. 8. Fig. 15 is an edge view of one of the side wedges. Fig. 16 is a cross-section forward of the body-bolster.

A A' are center sills of a car-frame, B the end sills, and B' the body-bolster, which may be of the usual and well-known construction.

C C' are the draft-plates, which may or may not be formed of one piece and are secured in any desired manner to the center sills A A'. The draft-plates C C' may be of a length to abut against or be secured to the body-bolster B', or they may be made to the full length of the car with recesses cut therein to fit around the bolster. The latter construction provides a stronger and more durable draft-plate and also serves to strengthen the underframing of the car. As is obvious, the draft-plate may be constructed of one piece, if desired. I have shown it in this instance constructed of two pieces extending back to and over the body-bolster.

D, Fig. 2, is an angle-iron, there being one on each side of the car-frame secured to the sills A A' and to the draft-plates C C'.

Disposed upon the inner side of the draft-plates C C' and secured thereto are the angle-plates E, which are provided with flanges *e*. Between the inwardly-turned flanges *e* of the angle-plates E and the body-bolster B' is arranged a bumper-block F.

F' is the draw-bar, and F² the yoke, which may be of the usual construction. Extending through the yoke F² and in the draft-plates C C' are the follower-bars G G'.

H H' are tubes which have openings coincident with the openings in the draft-plates, through which the follower-bars G G' also pass and are held in place by cotters *g* or the like. Arranged within each of the tubes H H' is a coiled cushioning-spring *h*, and around each tube is another cushioning-spring H². The follower-bars G G' form bearings for each of said cushioning-springs.

Disposed within the yoke F² at the draw-bar end thereof are the wedges I I, Figs. 1, 8, and 4, which are provided with elongated openings *i*, through which the follower-bar G' extends. These wedges I I are provided at their edges with open-ended slots *i'* to permit of the limited forward and rear movement of the draw-bar.

I' is a wedge disposed in the circular end of the yokes F², the edge of said wedge I' projecting between the edges of wedges I I. This wedge is provided with an opening *i''* coincident with those in the draft-plates, through which the follower-bar G is extended.

Arranged upon either side of these wedges I I and I' and between the angle-plates E E are a series of springs J, each having an opening *j* coincident with those in the wedges I I and I', also an open-ended slot *j'* to permit the forward and rear movement of the draw-bar. These springs J when assembled, as shown in Fig. 1, alternately overlap each other with sufficient room between the draft-plates E for compression under pressure of the backward movement of the draw-bar F' to take up the strain upon the bars G G'. These springs J are held in position upon the follower-bars G G', and as arranged the same set of springs operate against the forward and rear movement of the draw-bar and permits the same to have the limited movement necessary.

In cars having the center sills A A' farther apart than in the construction shown in Fig. 1 the space between the wedges I I and I' and the draft-plates C C' (or the angle-plates E E where these plates are used) may be filled by

assembling the spring-plates K, as shown in Fig. 8. In this construction, Fig. 8, in assembling the spring-plates K, which are provided with openings k' k^2 , I have reversed the contour of each alternate spring and assemble them in sets or pairs, in this instance having three sets or springs upon each side of the wedges. The number of sets of springs to be used is, however, not limited, but regulated by the space to be filled. A plate k is disposed between each set of springs K, which forms a bearing-surface for the springs K. Outer wedges k^3 are placed next to the angle-plates E to form an additional bearing-surface for the springs K. The wedges I I, Fig. 8, are provided with an outer surface or casing L, of hardened steel, (shown in Fig. 10,) which casing projects slightly beyond the wedge upon either side thereof, the draw-bar fitting therebetween.

It will thus be seen that I have provided a draft-gear which is easily and readily accessible and one which could be repaired without removing the load from a car.

While I have described quite in detail the construction here shown and the manner of assembling the springs, yet I do not desire to be limited to these precise arrangements. As is obvious, the wedges and springs might be arranged with different relation to each other and produce the results desired—viz., to take up the jar and strain resulting from the shocks of cars bumping together. Neither do I desire to be limited to the use of the wedges arranged as shown, as obviously they might be dispensed with entirely or reversed in their arrangement.

I claim—

1. In a draft-gear, the combination with the underframing of a car, a draft plate or plates secured to the sills of a car-frame, a draw-bar and yoke movable in the draft-plates, wedges disposed within said yoke, follower-bars extending through said draft-plates and wedges, and springs supported by the follower-bars upon the outside and inside of said draft-plates, substantially as described.

2. In a draft-gear, the combination with the underframing of a car, a draft plate or plates secured to the sills of a car-frame, a draw-bar and yoke movable in the draft-plates, laterally and longitudinally movable wedges disposed within said yoke, springs upon either side of said wedges, follower-bars extending through said wedges, springs and draft-plates, and springs upon the outside of said draft-plates, substantially as described.

3. The combination with the center sills and body-bolster of a car, draft-plates secured to said center sills, a draw-bar movable in said draft-plates, springs upon the inside of said draft-plates, forward and rear follower-bars extending through openings in said springs and draft-plates, and cushioning-springs for

said follower-bars upon the outside of said draft-plates, substantially as described.

4. The combination with the underframing of a car, draft-plates secured to said car-frame, an angle-iron secured to the outside and an angle-plate secured to the inside of said draft-plates, a draw-bar movable in said draft-plates, follower-bars extending through and supporting cushioning-springs upon the outside and inside of said draft-plates, substantially as described.

5. In a draft-gear, the combination with the center sills and body-bolster of a car, draft-plates and angle-irons secured to said center sills, a draw-bar and yoke movable in said draft-plates, a forward follower-bar extending through openings in the draft-plates, wedges supported upon said forward follower-bar and abutting against the draw-bar, a rear follower-bar extending through openings in the draft-plates and supporting a wedge, the edge of which is projected between the edges of the wedges supported by the forward follower-bar, and cushioning-springs upon the outside and inside of said draft-plates.

6. In a draft-gear, the combination with the center sills and body-bolster of a car, draft-plates secured to said center sills, a draw-bar and yoke movable therein, forward and rear follower-bars extending therethrough, said bars supporting wedges abutting against said draw-bar and yoke slotted spring-bars supported by said follower-bars and alternately overlapping each other, and cushioning-springs supported by the follower-bars outside of the draft-plates.

7. In a draft-gear, the combination with the center sills and body-bolster of a car, draft-plates secured to said center-sills, a draw-bar and yoke movable therein, forward and rear follower-bars extending therethrough, said bars supporting wedges abutting against said draw-bar and yoke, sets of slotted springs supported by said follower-bars and a slotted bearing-plate between each set of springs, substantially as described.

8. In a draft-gear, the combination with the center sills and body-bolster of a car, draft-plates secured to said center sills, a draw-bar and yoke movable therein, slotted wedges abutting against the draw-bar and yoke, forward and rear follower-bars extending through said draft-plates and wedges, slotted springs supported by said follower-bars upon the inside of the draft-plates, said bars adapted to move longitudinally in the slots in said springs, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HERMAN C. PRIEBE.

Witnesses:

JENNIE L. FISKE,
CHARLES I. COBB.