

(No Model.)

2 Sheets—Sheet 1.

C. T. SCHOEN.
CAR BOLSTER.

No. 475,023.

Patented May 17, 1892.

Fig. 1.

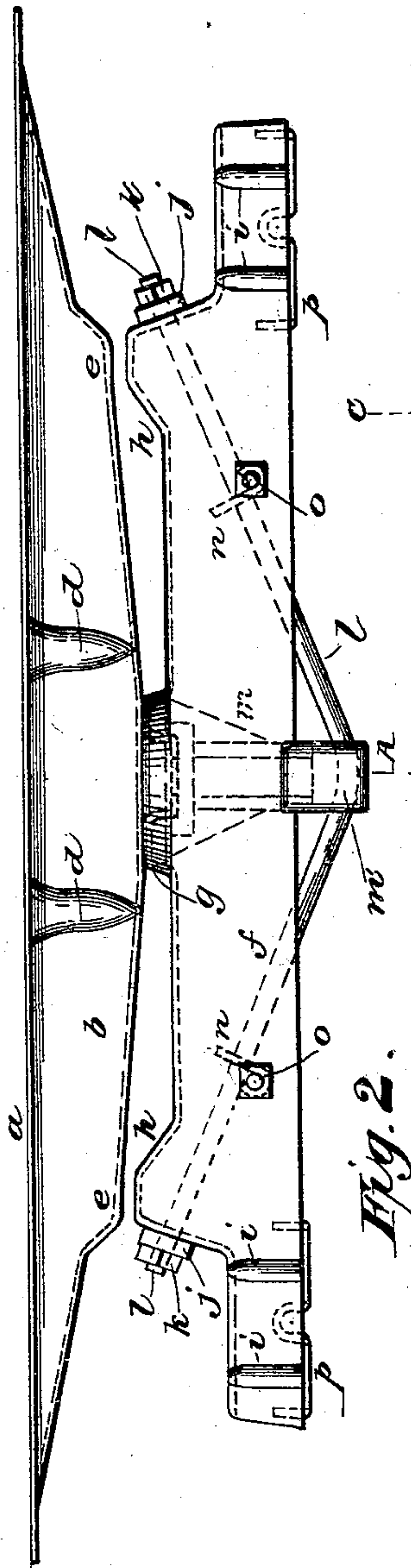


Fig. 2.

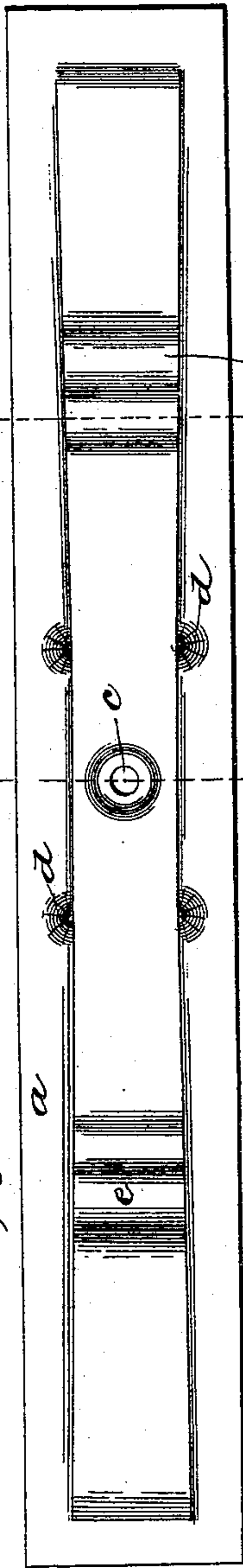


Fig. 3.

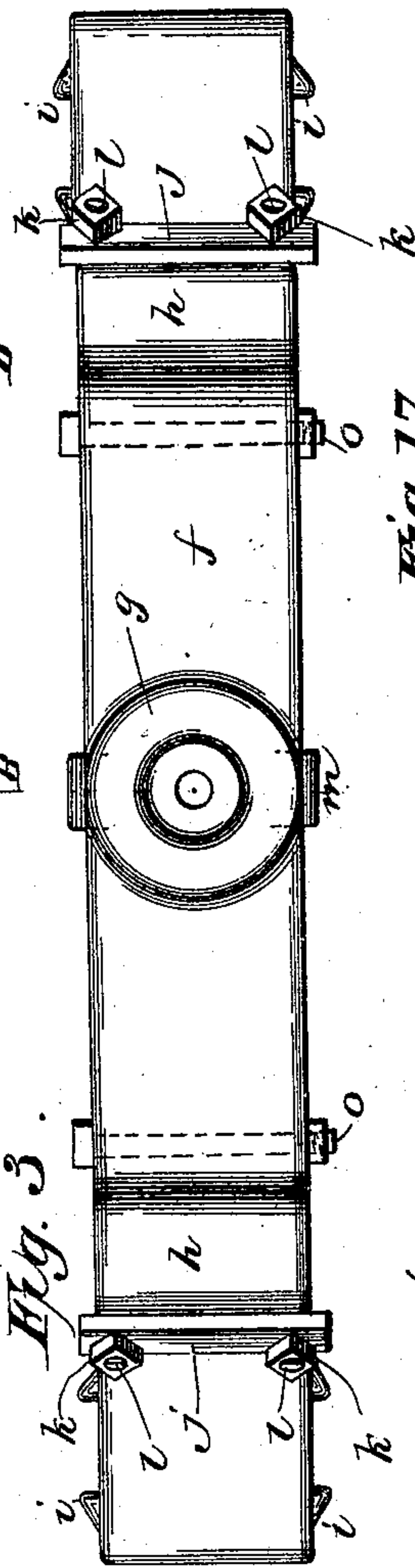


Fig. 17.



Fig. 14.



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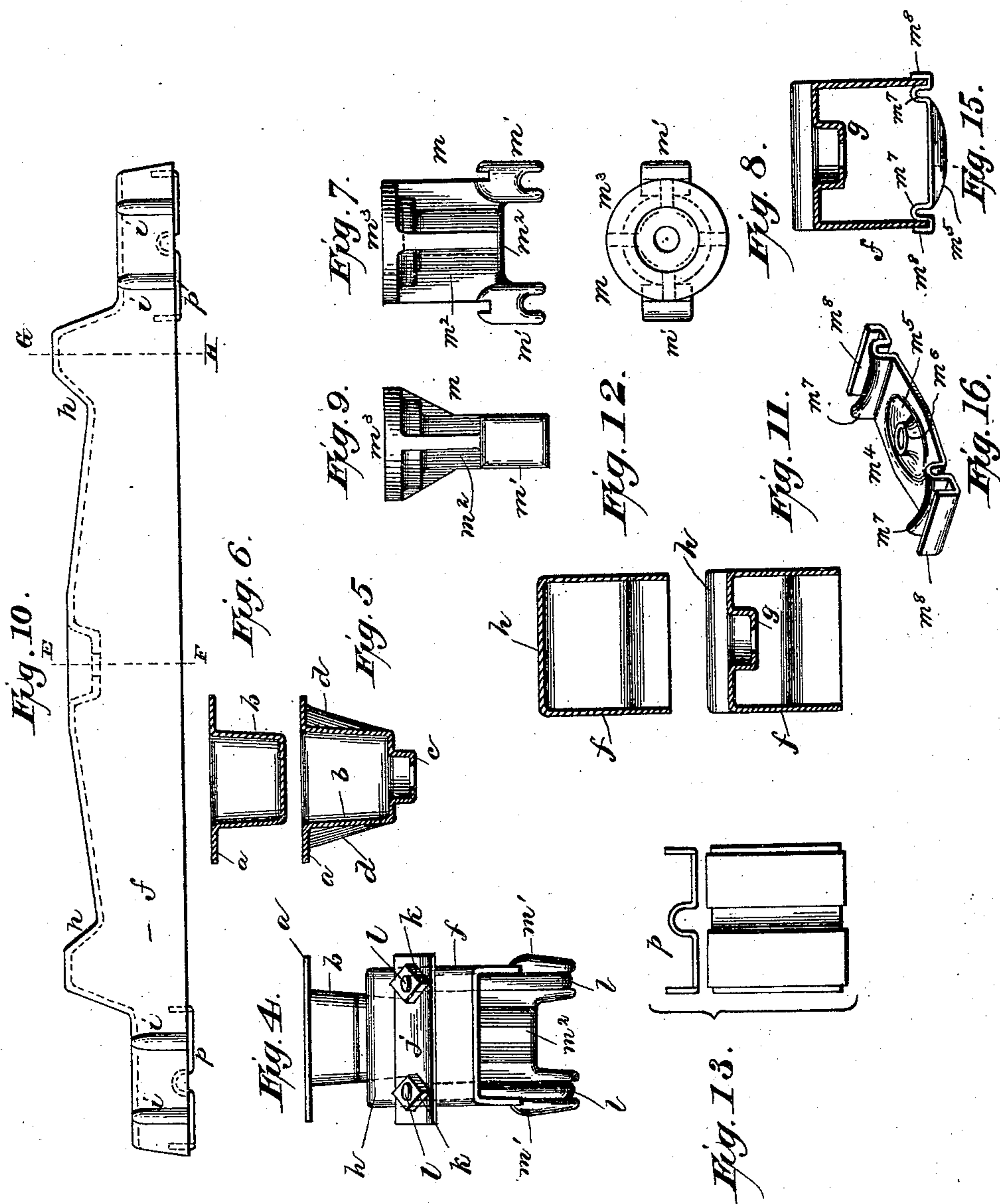
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

CHARLES T. SCHOEN, OF PHILADELPHIA, PENNSYLVANIA.

CAR-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 475,023, dated May 17, 1892.

Application filed March 18, 1890. Serial No. 344,421. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. SCHOEN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Bolsters for Railway-Cars, of which the following is a full, clear, and exact description.

The object of this invention is to provide in an economical manner from pressed steel or equivalent plate metal the bolsters used in railway-car trucks.

The invention consists in bolsters constructed with the center bearing-plates and the side bearings integral therewith.

The invention further consists in the details of construction of bolsters formed of pressed steel or equivalent material.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a front elevation of the body-bolster and the truck-bolster in position. Fig. 2 is a plan view of the body bolster or transom. Fig. 3 is a plan of the truck-bolster. Fig. 4 is an end view of parts shown in Fig. 1. Figs. 5 and 6 are transverse sections taken in the planes of lines A B and C D, respectively, of Fig. 3. Figs. 7, 8, and 9 show, respectively, in side, top, and edge view one form of the truck-bolster saddle. Fig. 10 is a side elevation of a modified form of truck-bolster, and Figs. 11 and 12 are cross-sections thereof taken in the planes of lines E F and G H, respectively, of said Fig. 10. Fig. 13 shows in plan and edge view the spring-plate floor. Fig. 14 shows in plan and edge view the distance-piece for the truck-bolster. Fig. 15 is a perspective view of the preferred form of saddle. Fig. 16 is a section similar to Fig. 11, showing this saddle applied to a bolster; and Fig. 17 is a modified form of distance-piece.

The body-bolster may have an all-round flange *a* and the longitudinal trough *b*, which trough springs from nothing at opposite ends of the bolster, and has its greatest elevation at its center and forms the body of the bolster. At the center is provided the center bearing *c* of approved pattern. Ribs *d* are provided to strengthen and stiffen the trough. On either side of the center bearing

there are provided the side bearings *e* of approved pattern. The body-bolster thus constructed is by preference struck up in dies from a single piece of plate-steel. The truck-bolster is made as a trough-like body *f*, which has the center bearing *g* and the side bearings *h* of approved pattern. The ends of the truck-bolster may be left open, as shown in Fig. 4. Vertical ribs *i* are made on the ends of the truck-bolster and on opposite sides and parallel to one another to form the guides for the bolster guide-bars. The truck-bolster thus constructed by preference is struck up in dies from a single piece of plate-steel. The outer walls of the elevations forming the side bearings on the truck-bolster form abutments to receive the washer-plates *j* and nuts *k* of truss-rods *l* when such truss-rods are employed. These truss-rods *l* are received by a truck-bolster saddle, two forms of which are shown. The truck-bolster saddle *m* may be a casting, having the sockets *m'* to receive the truss-rods and having the stiffened web *m''*, which terminates in a head *m'''*, made to fit within the center bearing *g*, as shown in Figs. 1, 3, 4, 7, 8, and 9; but instead of such casting I may employ, and preferably do use, saddles struck up of wrought metal, such as plate-steel, and, as shown in Figs. 15 and 16, wherein *m⁴* is the saddle constructed with a central stiffening-rib *m⁵* and a king-bolt or center pin opening and collar *m⁶*, stirrups *m⁷* for the truss-rods, and stirrups *m⁸* for engagement with the edges of the bolster. The truss-rods are properly steadied and the body of the bolster laterally braced by means of the distance-pieces *n*, which, as shown in Figs. 1 and 14, may be pieces of plate metal bent up at *n'* to form sockets for the reception of the fastening-bolts *o*, and having opposite edges notched, as at *n''*, to receive the truss-rods. The distance-pieces, however, may be simple tubes, as shown in Fig. 17.

In order to provide for the reception of the spring-plates, the ends of the truck-bolster may be supplied with the floors or floor-plates *p*. (Shown in detail in Fig. 13 and shown as applied in Fig. 1.) The truss-rods may be omitted, and in that case I prefer to have the top of the truck-bolster slant from the top of the center bearing to the side bearings, as

shown in Fig. 10. The body-bolster and its center bearing and side bearings, as will be observed, are in a single piece, and so, also, the truck-bolster and its center bearing and side bearings are in a single piece. The specially-designed thing to be accomplished by my invention is this construction of each of the bolsters with center bearings and side bearings integral.

10 Bolsters or transoms constructed in accordance with this invention are designed to be interchangeable with corresponding parts now in use.

What I claim is—

15 1. A bolster composed of a main body portion and side bearings and a center bearing projecting from the plane of the top and all constructed integrally and of pressed steel or equivalent material, substantially as described.

20 2. A body-bolster having a base-flange and a trough-like elevation therefrom constructed in one piece and of pressed steel or equivalent material, with the side bearings and center bearing which project from the plane of the top and are integral therewith, substantially as described.

25 3. A body-bolster having a base-flange and a trough-like elevation therefrom constructed in one piece and of pressed steel or equivalent material and integrally with the side bearings and center bearing and with verti-

cal strengthening or stiffening ribs, substantially as described.

4. A truck-bolster having a center bearing and side bearings thereon projecting from the plane of the top and all struck up in a single piece from wrought metal, substantially as described.

5. A truck-bolster comprising the body, side bearing and center bearings all in one piece, a saddle, and truss-rods co-operating with the saddle and with the ends of the bolster from which the side bearings are struck, substantially as described.

6. A hollow truck-bolster constructed substantially as described, combined with a saddle, truss-rods, and distance-pieces, substantially as described.

7. A truck-bolster formed of pressed steel or equivalent material and integral with guides for the bolster guide-bars, substantially as described.

8. A bolster truss-rods saddle struck up from wrought metal, preferably plate-steel, and having stirrups at its ends to receive the truss-rods and to engage the bolster, substantially as described.

In testimony whereof I have hereunto set my hand this 15th day of March, A. D. 1890.

CHARLES T. SCHOEN.

Witnesses:

EDWARD P. HIPPLE,
H. W. WEEKS.