

No. 657,286.

Patented Sept. 4, 1900.

H. J. HITCHINS & A. MAYHEW.

GIMBALED COT OR COUCH.

(Application filed Dec. 20, 1899.)

(No Model.)

2 Sheets—Sheet 1.

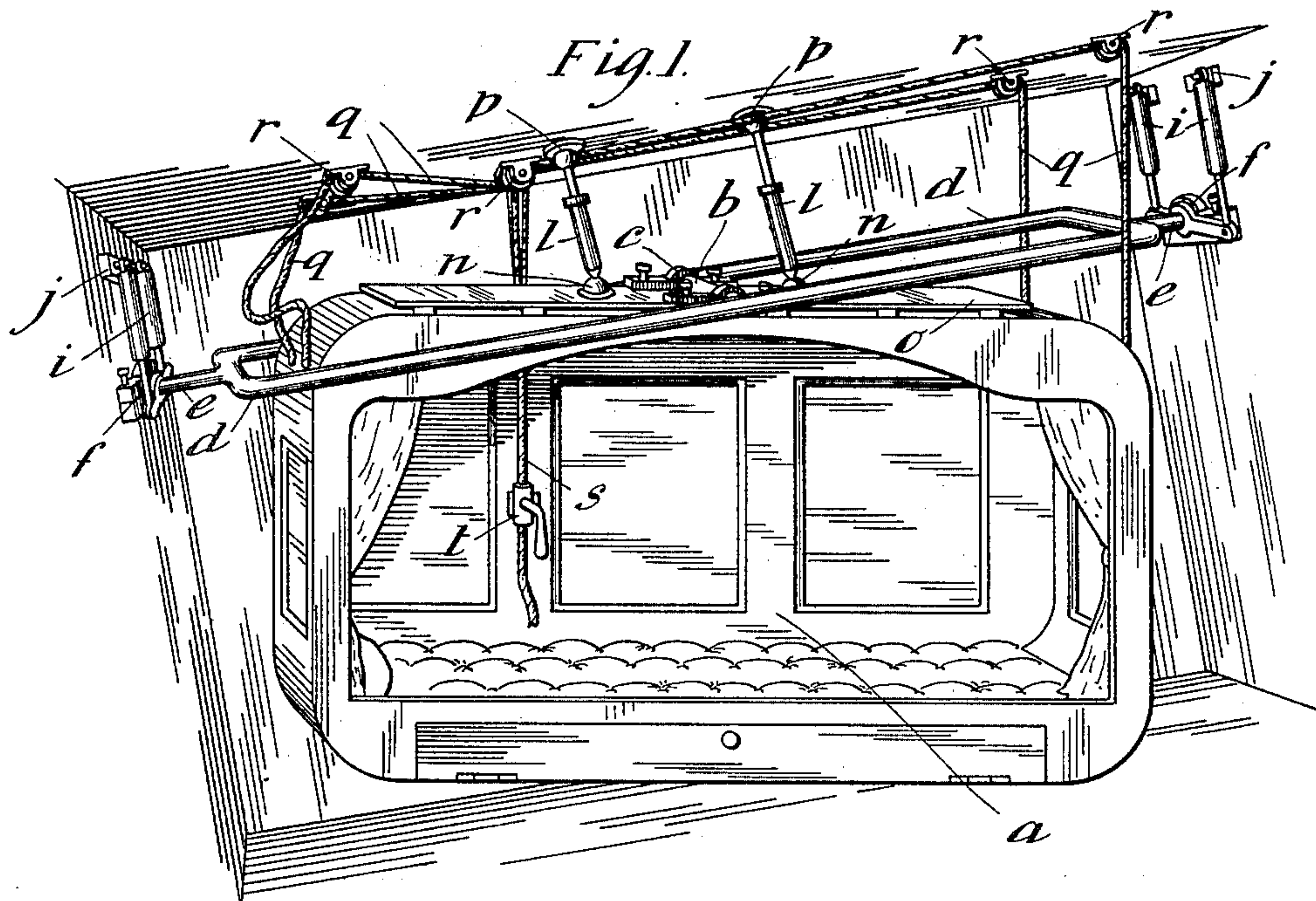
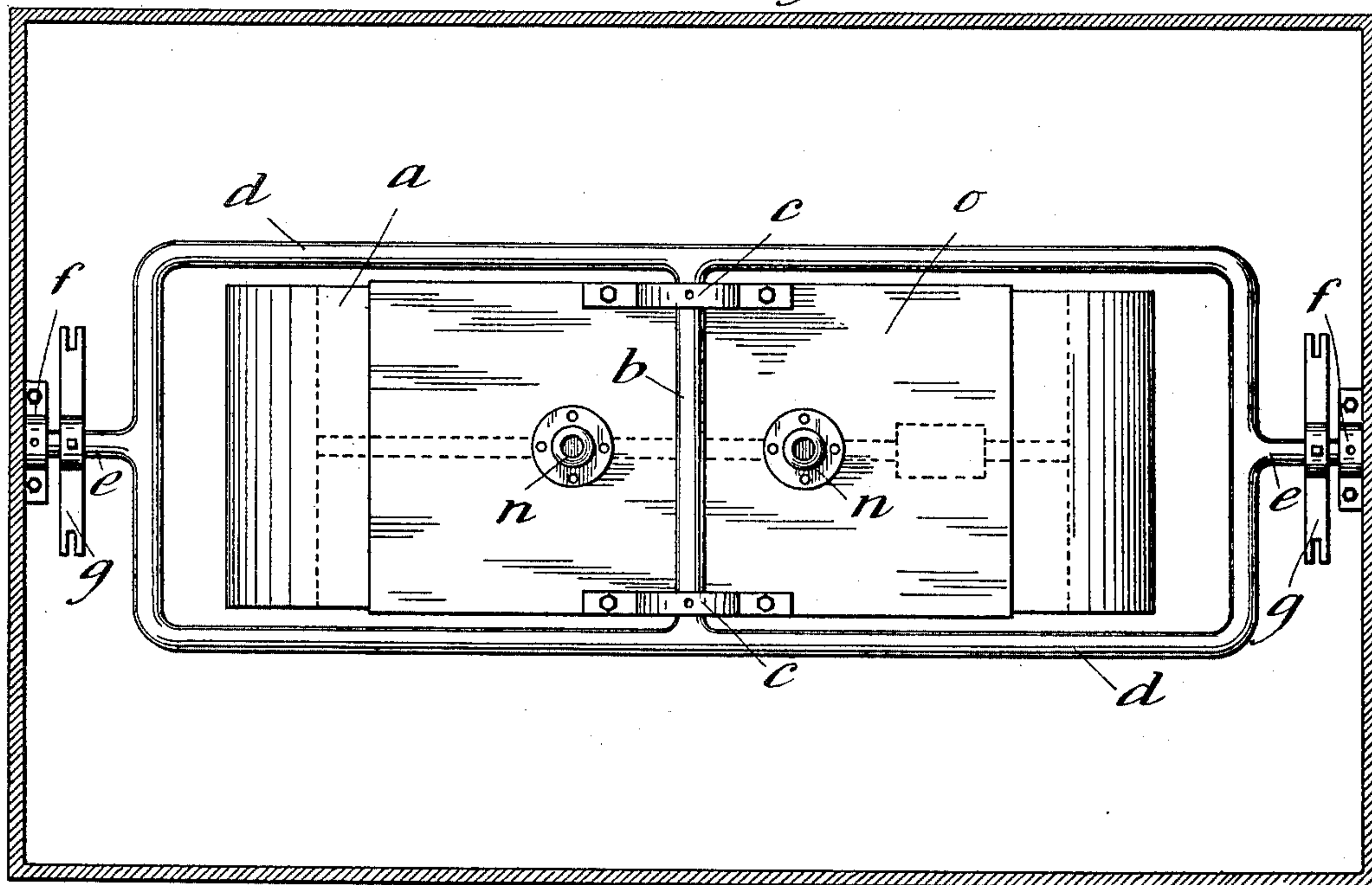


Fig. 2.



Witnesses:
G. D. Holdship
G. B. Blumling

Inventors
Harry J. Hitchins
Arthur Mayhew
by Daniel O. Baxendell, Attorney.

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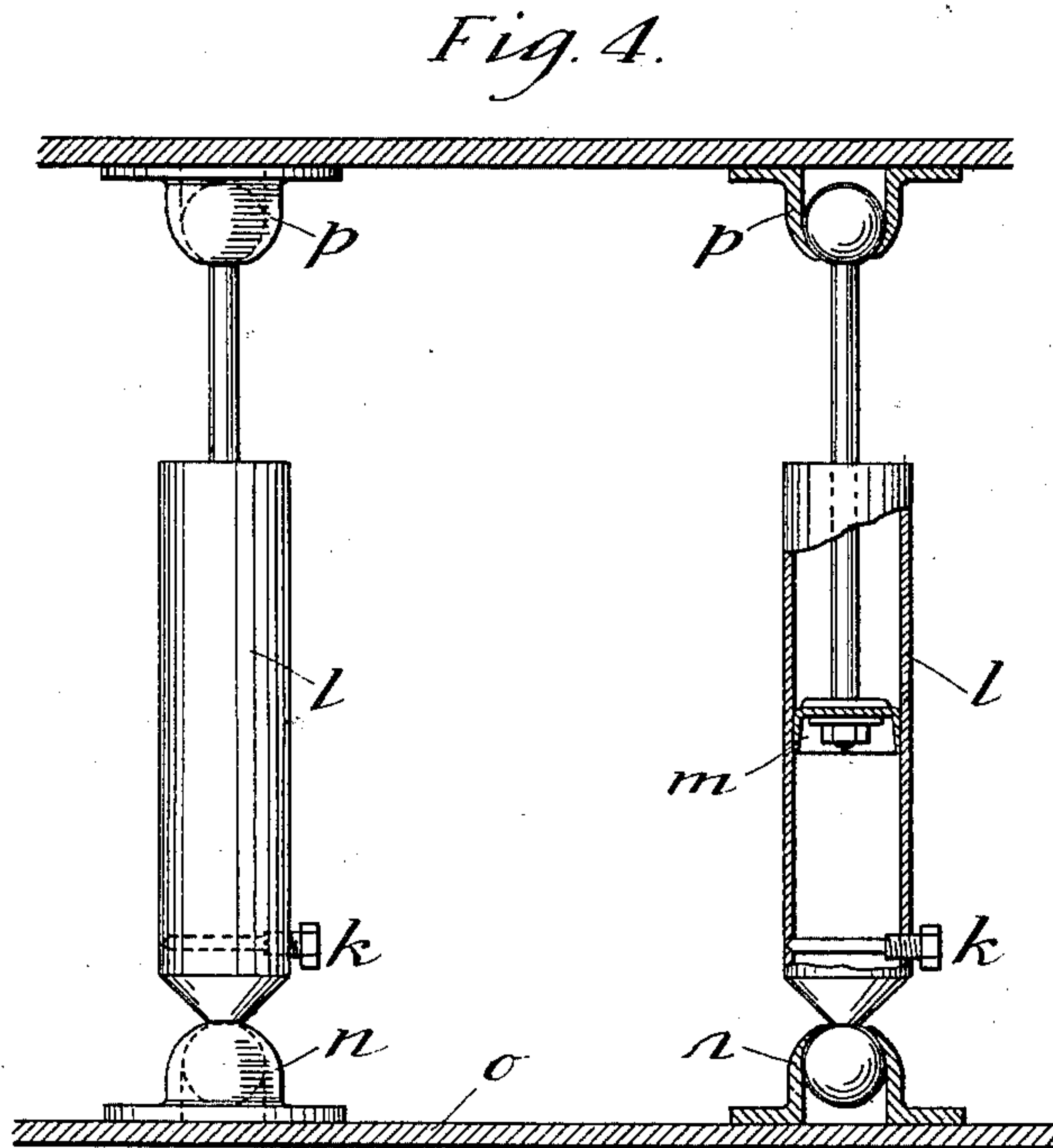
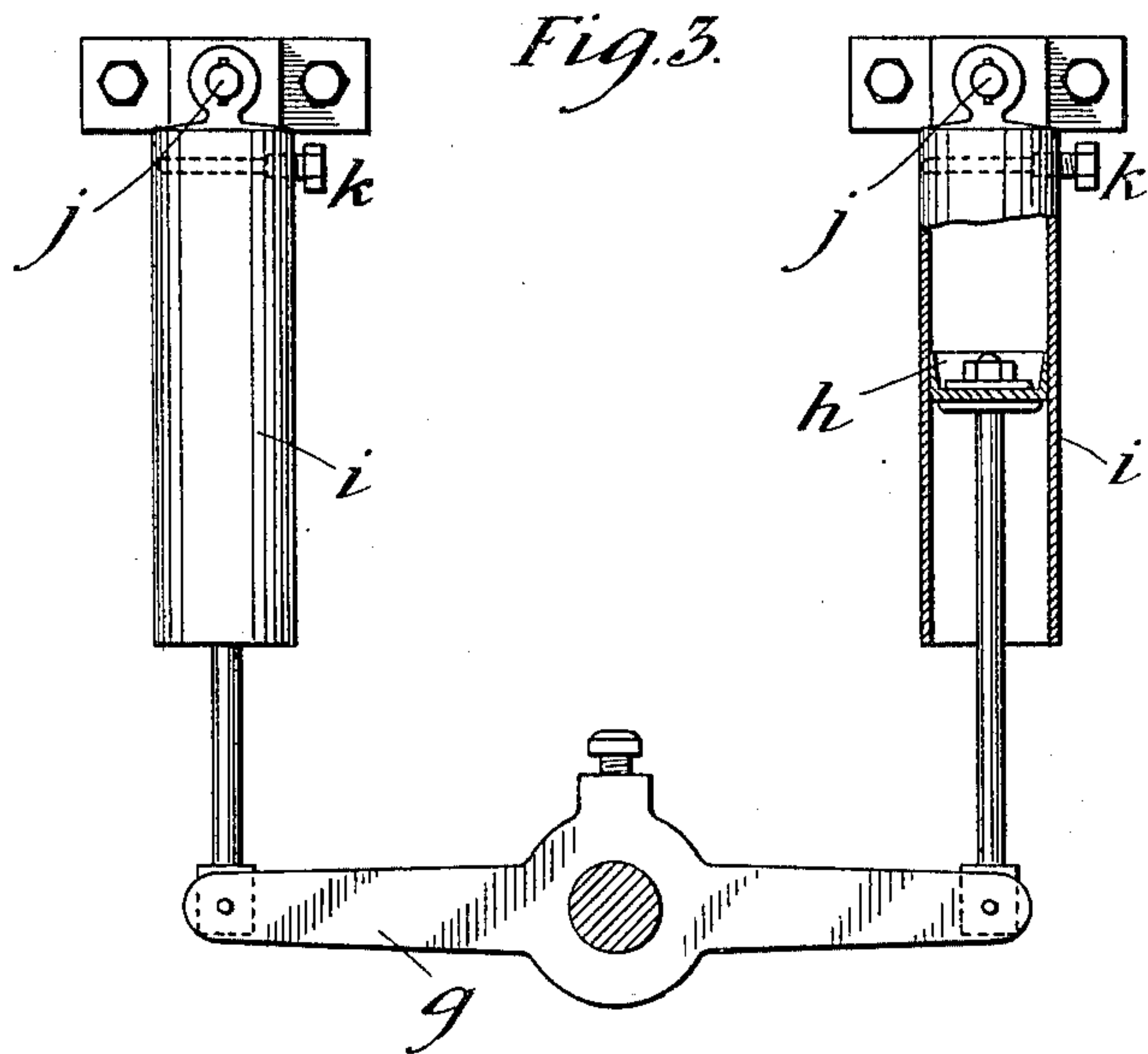
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Witnesses
G. S. Doldridge
G. B. Blaming

Inventors
Harry J. Hitchins
Arthur Mayhew
by Baxendell & Baxendell
their Attorneys.

UNITED STATES PATENT OFFICE.

HARRY J. HITCHINS AND ATHOL MAYHEW, OF LONDON, ENGLAND.

GIMBALED COT OR COUCH.

SPECIFICATION forming part of Letters Patent No. 657,286, dated September 4, 1900.

Application filed December 20, 1899. Serial No. 740,954. (No model.)

To all whom it may concern:

Be it known that we, HARRY JAMES HITCHINS and ATHOL MAYHEW, citizens of England, residing at 7 Leicester street, Leicester Square, London, England, have invented certain new and useful Improvements in Gimbaled Cots or Couches for Use at Sea, (for which we have applied for patents in Great Britain, dated May 31, 1899, No. 11,327; in France, dated November 28, 1899, No. 282,884, and in Belgium, dated November 28, 1899, No. 115,326,) of which the following is a specification.

Cots or couches have been hung in gimbals on board vessels so that they may remain comparatively stationary while the vessel rolls and pitches; but unless their movements relatively to the vessel are to a certain extent controlled they become too great for the comfort of the reclining passenger.

This invention relates to means of controlling these movements to a greater or less extent, as may be desired, the controlling appliances being readily adjustable. For this purpose a gimbaled cot or couch has its movements controlled, as will be described, referring to the accompanying drawings.

Figure 1 is a perspective view, and Fig. 2 is a plan, of a gimbaled cot with controlling appliances according to this invention. Fig. 3 is an elevation, partly in section, of the controlling appliance at one of the ends of the cot. Fig. 4 is a similar view of the controlling appliance at one of the sides of the cot.

The cot *a* has bearings *c* on the roof, in which is journaled a cross-shaft *b*, having its ends fixed to the sides of a frame *d*. This frame has at its ends trunnions *e*, journaled in bearings *f*, fixed on the sides of the cabin, or it may be on any suitable fixed framing. On each of the trunnions *e* is fixed a two-armed lever *g*. The ends of each of these levers, as shown in Fig. 3, are jointed to the rods of two packed pistons *h*, working in cylinders *i*, the ends of which are formed with eyes working on projecting pins *j*, fixed on the side of the cabin or other stationary wall. Each of the cylinders *i* has an adjusting-screw plug *k*, having a conical point entering a lateral hole

near the closed end of the cylinder. Besides the four cylinders above described there are, as shown in Fig. 4, two other cylinders *l*, fitted with packed pistons *m*. These cylinders have their closed ends formed as balls working in sockets *n*, which are fixed at equal distances from the axis of the cross-shaft *b* on the roof *o* of the cot. The ends of the piston-rods are also formed as balls working in sockets *p*, fixed to the ceiling of the cabin. Each of the cylinders *l* has an adjusting-screw plug *k* like that of each cylinder *i*. Under the cot may be fixed in any convenient way a weight to equalize the strain on each of the pistons when the cot is occupied. By adjusting the screws *k* in the several cylinders so as to give less or more passage for air into and out of the cylinders the movements of their pistons can be more or less checked, and thus the cot is prevented from making excessive movements relatively to the vessel.

For convenience in entering or leaving the cot cords *q*, attached to its ends in pairs, are led over guide-pulleys *r* and combined into one pull *s*, which can be fixed by a clamp *t* at the side of the berth. By pulling all the cords tight the cot is prevented from swinging relatively to the floor of the cabin, and the passenger can then easily enter the cot. Having entered, he can unclamp the cords, leaving the cot free to swing on its gimbals, and before leaving the cot he can again tighten and clamp the cords.

Having thus described the nature of this invention and the best means we know of carrying the same into practical effect, we claim—

1. The combination with a gimbaled cot or couch, of self-acting pneumatic dash-pot devices connected thereto, said devices being independent of any external source of power; substantially as described.

2. The combination with a gimbaled cot or couch, of self-acting pneumatic piston-and-cylinder dash-pots connected thereto, the cylinders being independent of each other and of any external source of supply; substantially as described.

3. A gimbaled cot or couch having pneu-

matic dash-pot cylinders connected thereto and provided with valve-controlled air-ports; substantially as described.

- 5 4. A gimbaled cot or couch, having a clamp secured thereto, and a set of cords leading in pairs from its ends over external guide-pulleys and thence to the clamp; substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

H. J. HITCHINS.
ATHOL MAYHEW.

Witnesses:

GERALD L. SMITH,
OLIVER IMRAY.