

L. BLÉRIOT.
MEANS FOR SUPPORTING AERIAL MACHINES.
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987,540.

Patented Mar. 21, 1911.

Fig. 1.

Fig. 2.

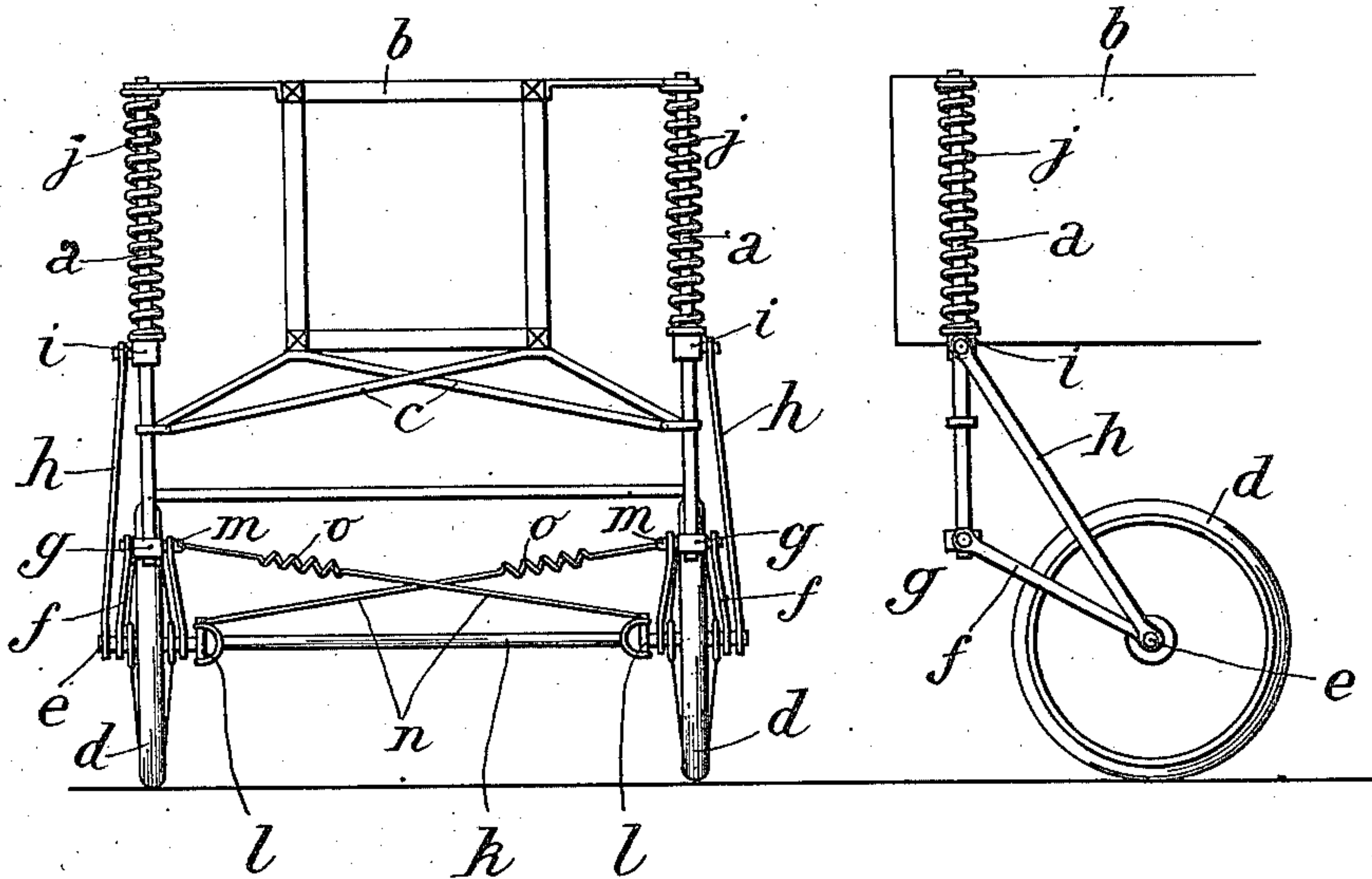
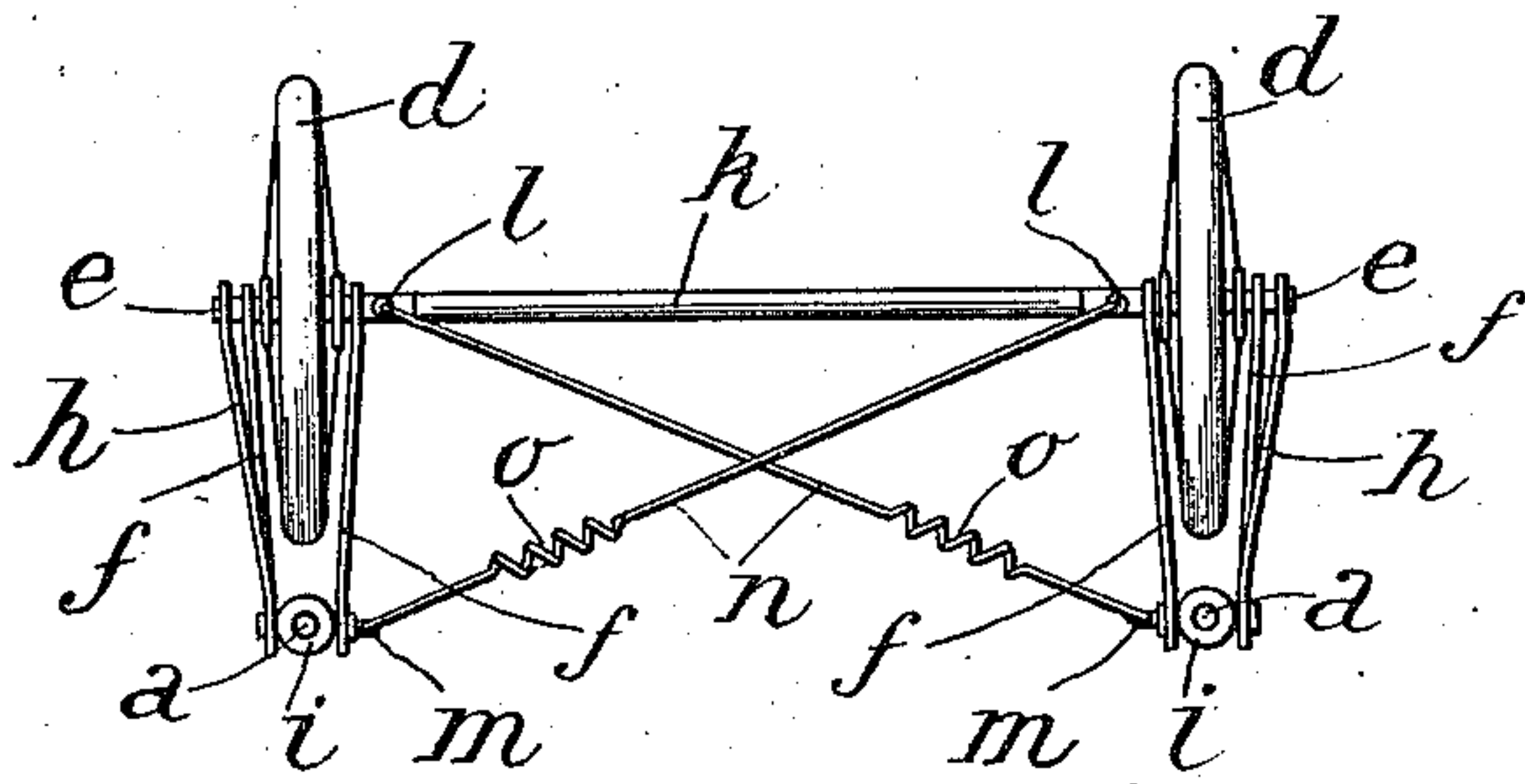


Fig. 3.



Witnesses:

[Signature]
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UNITED STATES PATENT OFFICE

LOUIS BLÉRIOT, OF NEUILLY-SUR-SEINE, FRANCE.

MEANS FOR SUPPORTING AERIAL MACHINES.

987,540.

Specification of Letters Patent.

Patented Mar. 21, 1911.

Application filed January 11, 1909. Serial No. 471,748.

To all whom it may concern:

Be it known that I, LOUIS BLÉRIOT, a citizen of the Republic of France, residing at Neuilly-sur-Seine, France, have invented certain new and useful Improvements in Means for Supporting Aerial Machines, of which the following is a specification.

This invention relates to a system of fitting antifriction devices such as wheels runners or similar parts to aeroplanes and similar machines for supporting them on the ground, which consists in placing the axis of rotation of the said wheels at such a distance outside the plumb line or extension of the vertical rod or other support on which they are mounted, to enable the said support to oscillate vertically without meeting the said wheels, and in connecting the said support to the wheels in such manner as to enable it to move independently of them, and vice-versa. The support of the wheels being thus in permanent connection with the machine, it becomes possible to use it for attaching shrouds or guys or for other applications. Moreover, by designing the system so that the wheels should be normally behind the plumb line of their support, they will be brought into the best position for landing.

A construction according to this invention is illustrated by way of example in the accompanying drawing which will make the invention clear.

Figures 1, 2 and 3 are respectively diagrammatic front elevation, side elevation and plan of the said construction.

The support proper of the wheels is marked *a*, and is assumed here to consist of a tubular rod permanently connected to the body *b* of the machine by braces *c*. The wheels are marked *d*. The hub *e* of the latter is connected to the support *a* first by one or more connecting rods such as *f* pivoted on the one hand to the said hub *e* and on the other hand to a collar *g* which can freely rotate on the support *a*, and in addition, by means of one or more connecting rods such as *h*, pivoted on the one hand to the said hub, and on the other hand to a second collar *i* which cannot only freely rotate on the support *a*, but can also move vertically on the same, being controlled by a compression spring *j* which rests against a fixed part of the support, and which, as will be readily understood, can also be replaced by a ten-

sion spring attached to the bottom portion of the support.

The working of the construction is obvious. It is preferable, in order to insure proper working, to connect the hubs by means of a false axle *k* with pivoted joints *l* and to connect each of the said hubs by means of a tie rod *n* with an elastic portion *o*, to a point *m* suitably selected on the machine, or on the support *a*, this being for the purpose of insuring that the wheels will normally assume the direction in the axis of the machine and automatically return to the said position after having been moved out of it, and after the lateral strain has ceased to act on them.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In an aerial machine, a framework, supports rigidly attached thereto, antifriction means and devices attaching said antifriction means to said supports and including resiliently cushioned slidably related elements.

2. In an aerial machine, a framework, supports rigidly attached thereto, antifriction means, and elastic suspension devices attaching said antifriction means to said support and including slidably related elements.

3. In an aerial machine, a framework, supports rigidly attached thereto, antifriction means, a bar joining said antifriction means and movable suspension devices attaching said antifriction means to said supports.

4. In an aerial machine, a framework, supports rigidly attached thereto, antifriction means, elastic means joining said antifriction means to a fixed point on said supports and elastic suspension devices attaching said antifriction means to said supports.

5. In an aerial machine the combination with vertical supports and antifriction means out of line therewith, of a pair of braces connecting each antifriction means and a corresponding support and suspending the former from the latter to permit of relative movements thereof, the braces being swiveled on the support and one of the braces having also a slidable connection with the support and elastic means to cushion the movements of the slidably connected brace.

6. In an aerial machine the combination of a supporting bar, an element slidable thereon, means to cushion the movement of the element, an antifriction means, and a pair of bars, one of which connects the anti-

friction means and the supportig bar and the other of which connects the antifriction means and the element.

7. In an aerial machine, the combination
5 with a machine body and antifriction means,
of a vertical support carried by the body, a
pair of braces connected at different points
to the support and arranged to form with
the support a deformable triangular frame,
10 the braces carrying the antifriction means
and having a swiveled relation to the support.

8. In an aerial machine, the combination
with a machine body and a pair of supports,
15 of a pair of antifriction means arranged out

of line with the supports, means connecting the antifriction means and the supports whereby the former may be moved horizontally with relation to the latter as an axis, and yieldable connections to maintain the antifriction means in the direction of the axis of the machine.

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

LOUIS BLÉRIOT.

Witnesses:

H. C. COXE,
ARMAND MORSE.