P. SIGAUDY.

RIVER BOAT.

APPLICATION FILED OCT. 18, 1905.

**905,377.**

Patented Dec. 1, 1908.

4 SHEETS—SHEET 1.

*Fig. 1.*

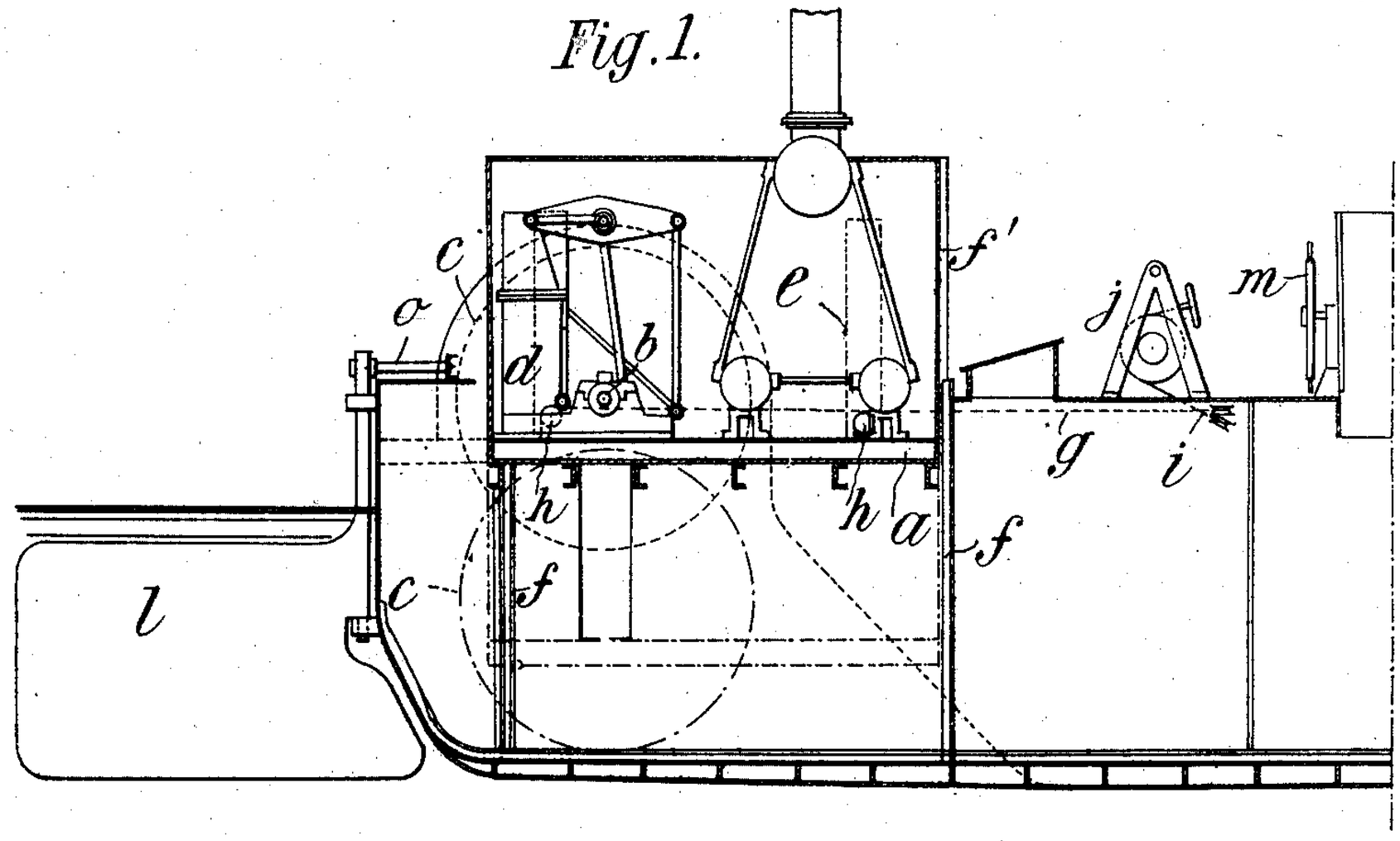
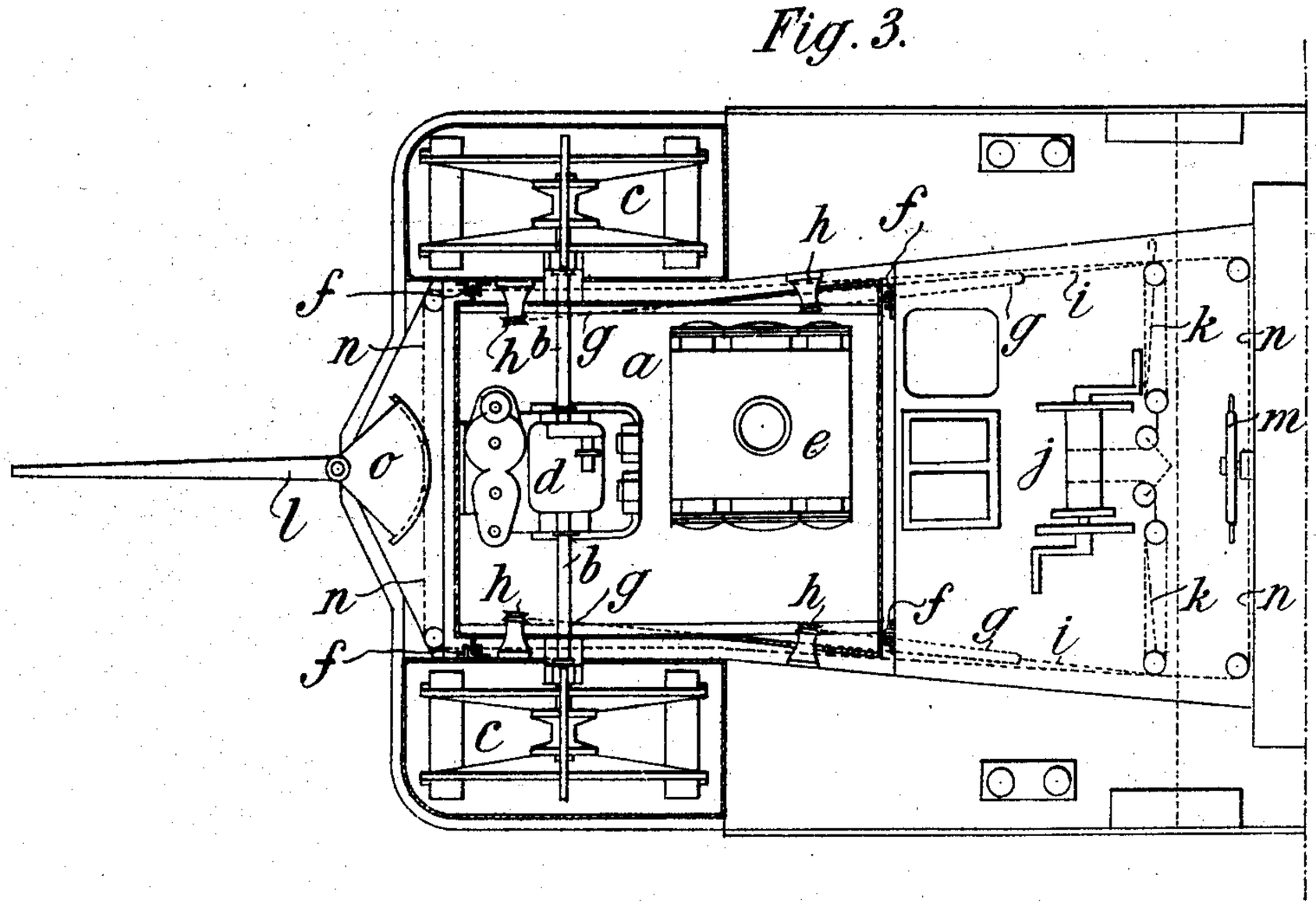



*Fig. 3.*




WITNESSES:

Fred White

René Muine

INVENTOR:

Pierre Sigaudy,

By his Attorneys

Arthur O. Fraser & Co

P. SIGAUDY.

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4 SHEETS—SHEET 2.

*Fig. 2b.*

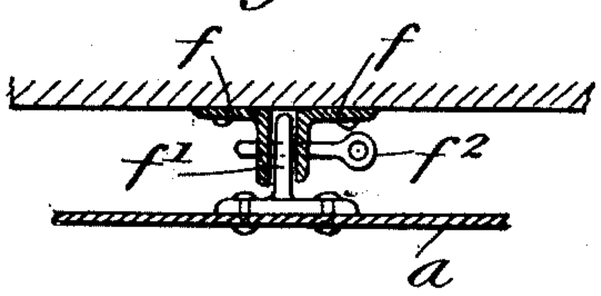



*Fig. 2c.*

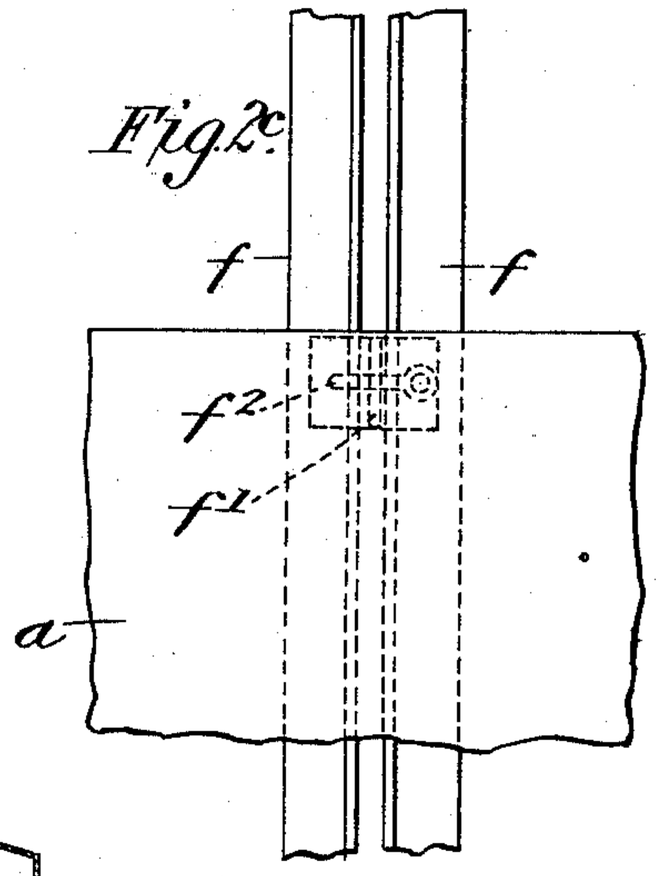



*Fig. 2.*

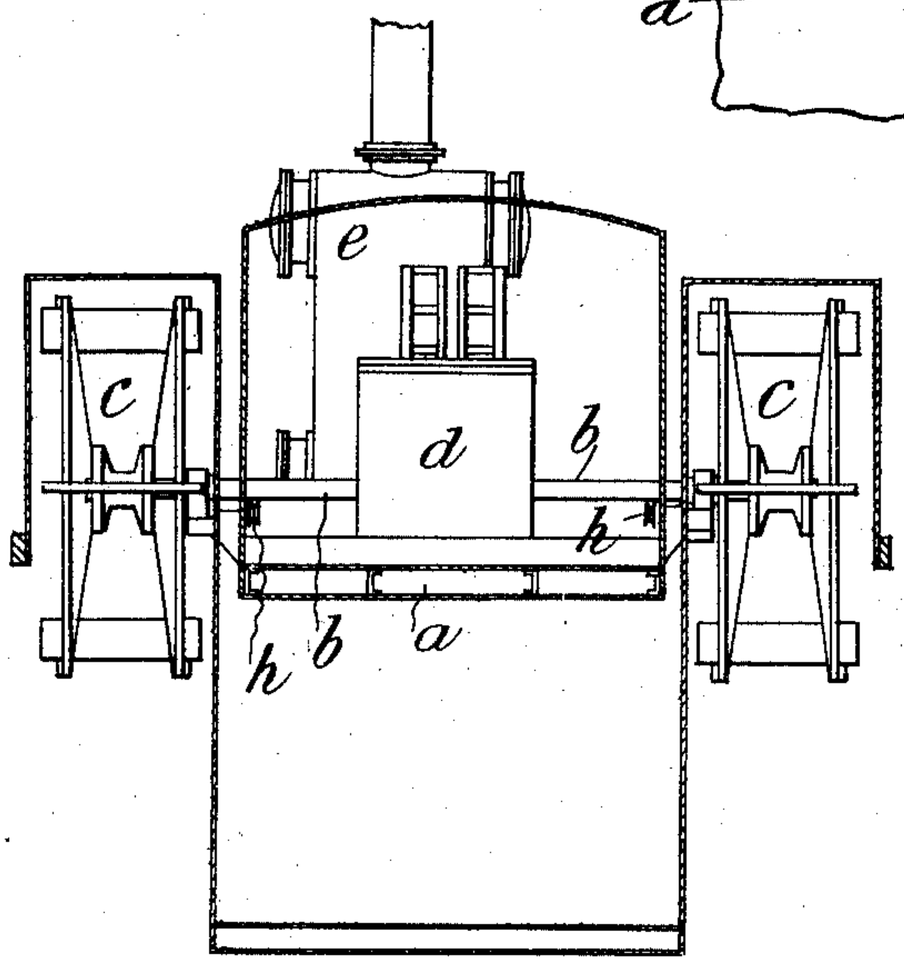
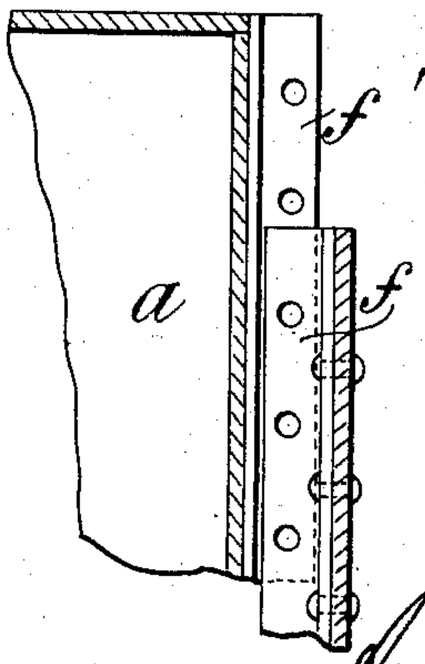



*Fig. 2a*




WITNESSES:

Fred Whitty

René Bruine

INVENTOR:

Pierre Sigaudy,

By his Attorneys

Arthur C. Fraser & Co

P. SIGAUDY.

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4 SHEETS—SHEET 3.

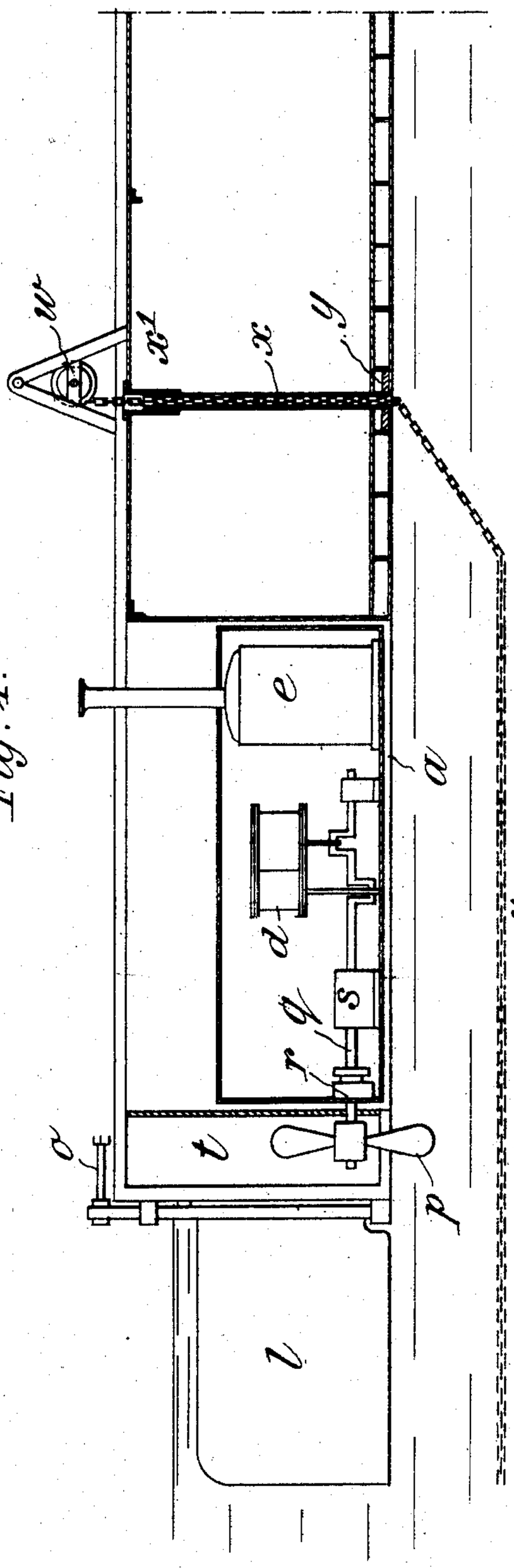


Fig. 4.

WITNESSES:

Fred Whitty

René Bruine

INVENTOR:

Pierre Sigaudy,

By his Attorneys

Arthur C. Fraser & Co

P. SIGAUDY.

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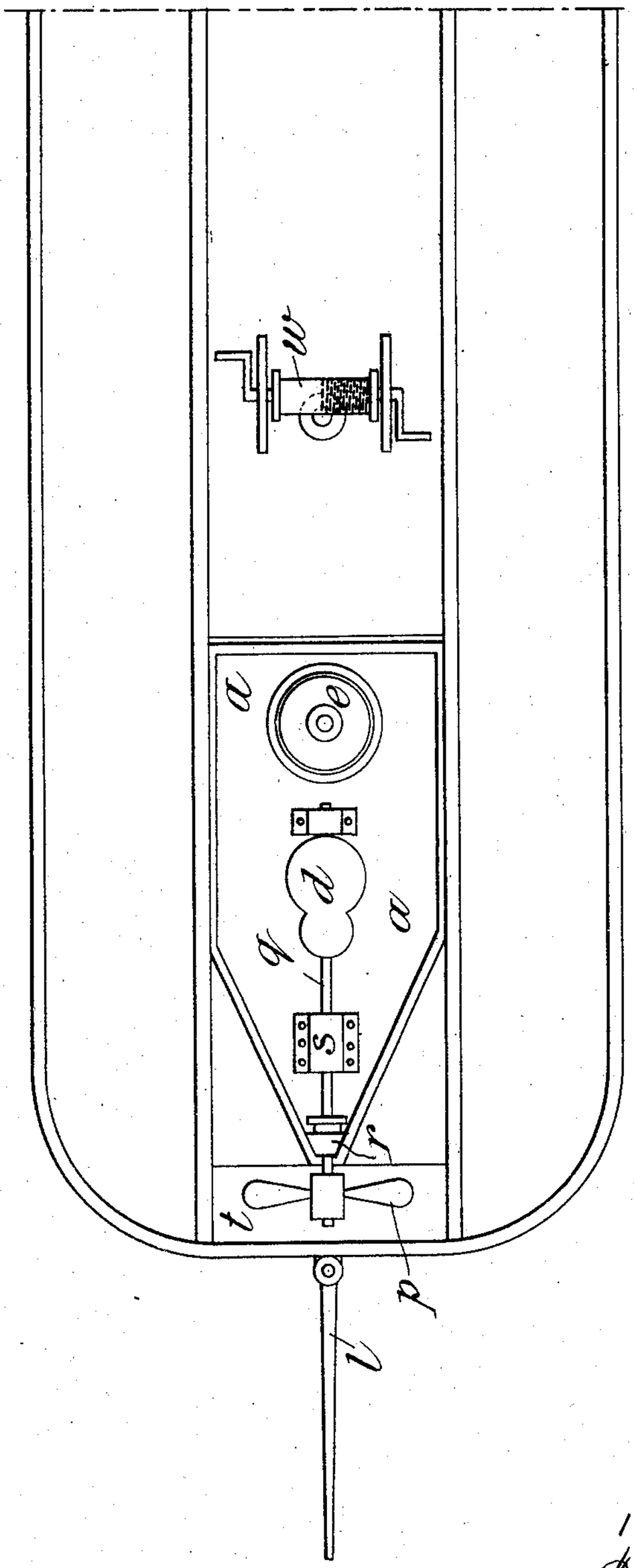
4 SHEETS—SHEET 4.

*Fig. 5.*




WITNESSES:

Fred Whitty

René Bruine

INVENTOR:

Pierre Sigaudy;

By his Attorneys

Arthur G. Fraser & Co

# UNITED STATES PATENT OFFICE

PIERRE SIGAUDY, OF LE HAVRE, FRANCE, ASSIGNOR TO STE. DES MESSAGERIES FLUVIALES DE FRANCE AND STE. AME. DES FORGES ET CHANTIERS DE LA MEDITERRANEE, OF PARIS, FRANCE.

## RIVER-BOAT.

No. 905,377. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed October 18, 1905. Serial No. 283,234.

*To all whom it may concern:*

Be it known that I, PIERRE SIGAUDY, a citizen of the Republic of France, and a resident of Le Havre, Seine-Inférieure, France, have invented certain new and useful Improvements in and Applicable to River-Boats, of which the following is a specification.

This invention relates to river boats and comprises a movable platform arranged at the stern of the boat for supporting the whole of the propelling machinery including the paddle wheels or the screw according to which of these propellers is employed in addition to the engine or motor and the position of which platform can be altered according to requirements. When the boat is provided with one or more screw propellers they can be caused to work entirely in the water. Moreover, the boat is provided with a traction chain or rope adapted to drag upon the bottom of the river or canal when required so as to constitute a brake and enable the boat to resist the drawing action of strong currents.

To enable the invention to be fully understood I will describe it by reference to the accompanying drawing in which:—

Figure 1 is a longitudinal section of the stern portion of a boat constructed according to my invention the movable platform carrying paddle wheels. Fig. 2 is a transverse section, Figs. $2^a$, $2^b$ and $2^c$ are respectively longitudinal and cross-sections and an elevation of guides and Fig. 3 is a plan view. Figs. 4 and 5 are respectively a longitudinal section and a plan of a boat with a platform carrying a screw propeller, the said boat being moreover provided with my river brake or traction rope.

The platform *a* of rigid sheet iron supports the entire propelling machinery namely by a steam, petroleum, gas or electric engine or the like and shaft *b* and paddle wheels *c*.

In the example shown in Figs. 1 to 3, the motor represented diagrammatically is a Sigaudy beam steam engine *d* directly actuating the wheels *c* and which is fed by a Normand-Sigaudy rapidly vaporizing boiler *e*.

The platform *a*, which is quite independent of the boat is movable between vertical guides *f* formed of angle or other suitable irons. These irons are provided with holes for fixing, by means of pins $f^2$, the slides *f'* (Fig. $2^a$) fixed on the platform *a* at different heights corresponding to the varying state of the load.

The platform *a* is suspended by chains *g*, *g*, *g*, *g*, passing over pulleys *h* fixed to the heads of the adjacent portions of the hull; the ends of the two chains on the same side are united together so as to form a single chain *i*. These chains *i*, *i* are actuated, according to requirements, either directly by a hand or steam winch *j* or through the medium of two pulleys *k*. These arrangements are, however, only given as an example, as the movement of the platform can be effected in any other manner, such as by screw windlasses, or hydraulically, or by a float, or the like.

The rudder *l* is operated by the wheel *m* which actuates chains *n*, *n* attached to the sector *o*.

Figs. 4 and 5 illustrate an arrangement in which a system of screw propulsion is employed upon the movable platform or float *a*, whereby the propellers can be immersed to the proper extent for efficient work whatever may be the depth of the boat in the water.

With the screw *p* mounted upon a movable platform or upon a float (Figs. 4 and 5) it can always be caused to give its maximum of efficiency whatever may be the depth of the boat in the water, since it will be only necessary to regulate the height of the platform or the float for the propeller to give its best results.

The movable platform *a* can if required be removed from the boat with all the propelling machinery.

*p* is the screw propeller mounted upon the shaft *q* passing through a stuffing box *r*, as well as through a bearing *s*.

The motor apparatus may consist, as in the arrangements shown in Figs. 1, 2 and 3, of a steam, petroleum or other engine *d;* if the motor is a steam engine the boiler is placed at *e*. An opening *t* is made in the deck of the vessel for the passage therethrough of the screw propeller *p*. This installation allows of cleaning the screw when the boat is fully loaded, in canals in which weeds abound.

In case one or more blades of the screw should become broken the screw can, when the boat is fully loaded, be easily replaced

without it being compulsory, as in existing boats, to unship the cargo.

The whole of the machinery being movable both in the case of the screw propeller and paddle wheel propulsion it can be taken out of the boat when loaded or unloaded for repairs or for replacing it by other machinery.

These boats with movable platforms are advantageously provided with a river brake or draft rope comprising a chain *v* (Fig. 4) the dragging of which upon the bottom of the river places a check upon the speed of the boat which is more or less, according to the length which is dragged of the chain. It completely stops the boat with a drag varying from 50 to 100 meters according to the current. The chain *v* wound upon a windlass *w* or other like apparatus passes into a metal tube *x* over which is placed a second tube *x'*. The tube *x* is fixed to a cast iron block *y* fitted to the bottom of the boat. This river brake or draft rope can be advantageously used on board all river boats for checking their speed at any required place by simply letting the rope down so that it drags on the river bed.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A boat provided with an independent vertically adjustable platform *a*, a propelling device and a driving engine therefor both carried directly by said platform, vertical guides *f* for said platform provided with holes, slides *f'* carried by said platform and provided with holes adapted to register with the holes in the guides *f*, and pins adapted to enter said holes when in register so as to fix the platform at different heights.

2. A boat provided with an independent vertically adjustable platform *a*, a propelling device and a driving engine therefor both carried directly by said platform, vertical guides *f* for said platform provided with holes, slides *f'* carried by said platform and provided with holes adapted to register with the holes in the guides *f*, pins adapted to enter said holes when in register so as to fix the platform at different heights, chains *g* from which said platform is suspended, pulleys *h* fixed to the adjacent portions of the hull and over which said chains pass, a single chain *i* at each side and to which two of the chains *g* are connected, a winch *j* for operating said chains, and pulleys *k* interposed in said chains *g*.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

PIERRE SIGAUDY.

Witnesses:

JOHN CRESTON BEECHER,

DANIEL PARKIRES.