No. 676,365. Patented June 11, 1901.

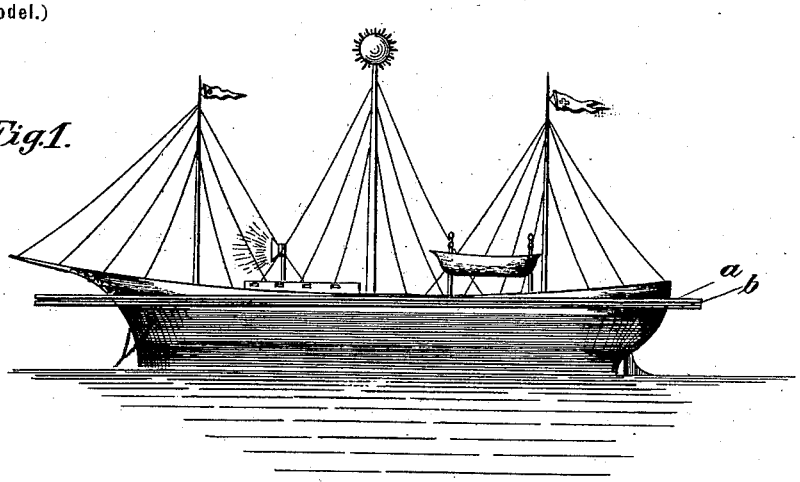
J. H. JUNGE.

MEANS FOR ELECTRICALLY LIGHTING LIGHT SHIPS OR OTHER STATIONARY VESSELS.

(Application filed June 28, 1900.)

(No Model.)

Fig.1.



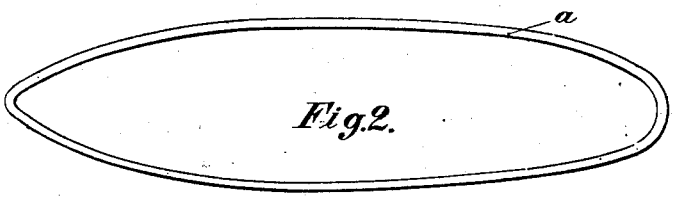


Fig.2.

Fig.3.

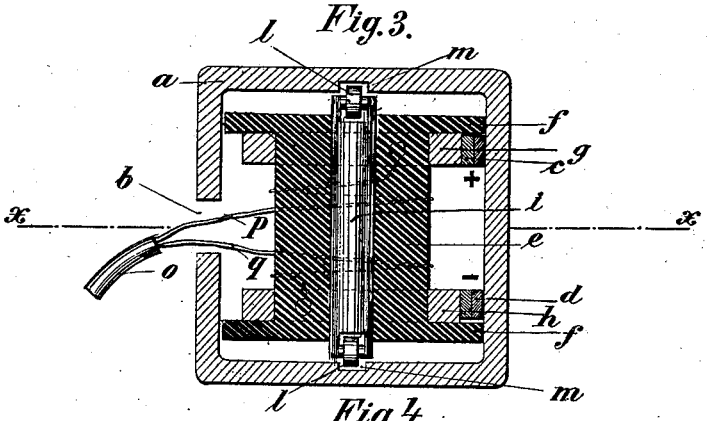
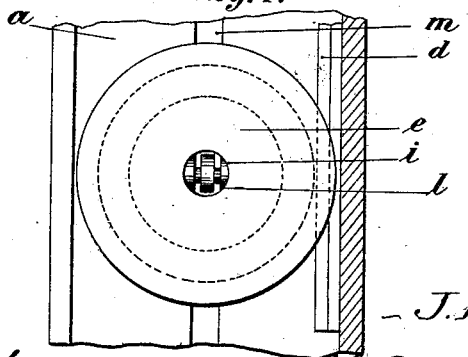


Fig.4.



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UNITED STATES PATENT OFFICE.

JÜRGEN HINRICH JUNGE, OF CUXHAVEN, GERMANY.

MEANS FOR ELECTRICALLY LIGHTING LIGHT-SHIPS OR OTHER STATIONARY VESSELS.

SPECIFICATION forming part of Letters Patent No. 676,365, dated June 11, 1901.

Application filed June 28, 1900. Serial No. 21,949. (No model.)

To all whom it may concern:

Be it known that I, JÜRGEN HINRICH JUNGE, pilot, a subject of the Emperor of Germany, residing at 6 Blohm street, Cuxhaven, in the Empire of Germany, have invented certain new and useful Improvements in Means for Electrically Lighting Light-Ships or other Stationary Vessels, of which the following is a full, clear, and exact description.

This invention has reference to electrically lighting light-ships and other stationary vessels, and has for its object and effect to provide a means of attachment of the electric cable to the vessel by which the cable is prevented from fouling the anchor-chains or becoming twisted or broken when the vessel swings at her moorings, while at all times the electrical contact is maintained. According to this invention these effects are obtained by means of a contact device disposed within a frame on the vessel's side, which renders it possible for the vessel to swing to her anchor-chains in any direction without the cable breaking or becoming damaged.

The invention is illustrated in the annexed drawings, in which—

Figure 1 shows a light-ship with the contact device. Fig. 2 is a plan of the frame which receives the latter. Fig. 3 is a cross-section, to an enlarged scale, through the frame and contact device; and Fig. 4 is a section at $x\ x$, Fig. 3.

The contact appliance mainly consists of a frame a, which forms a complete circuit in itself and is placed all around the vessel and fastened to same. This frame a is fixed at as high a level as possible above the water and at the fore part of the vessel passes around the bows with a wide sweep, so as to prevent the cable fouling the anchor-chains. Its transverse section is rectangular or square and only on the side farthest from the vessel shows a slit passing all around, through which the cable o is passed. Within the frame a two contact-rails c d pass all around the inside nearest the vessel and are fastened on insulating-strips. From these contact-rails c d suitable wires, which are not shown in the drawings, pass to the lamps which light the vessel.

Within the frame a a contact-roller is provided for the purpose of conveying the current from the cable o to the contact-rails, said roller being arranged as follows: Around a spindle e, with protruding rims f, which embrace the contact-rails c d, such spindle being made of a suitable insulating material, peferably vulcanite, metal rings g h are placed by the side of each of the rims in question, and these rings slide along on the contact-rails c d and are intended for the conveyance of the electrical current. For this purpose each of the metal rings g h serves for fastening one of the two wires p q, which branch off from the cable o, so that these two wires are absolutely independent of each other and by means of which the circuit may be closed.

The spindle e is fastened to an axle i, forked at the ends and holding rollers l, one at each end, which run in grooves m, disposed in the interior of the frame a. By this arrangement the spindle will be able to follow any movement of the vessel and at the same time maintain a circuit closed continuously and in a reliable manner.

A contact appliance constructed in the manner described not only renders it easy to adjust the contact-roller automatically, but absolutely precludes any twisting of the cable or any possibility of its being damaged or broken.

What I claim, and desire to secure by Letters Patent, is—

An electrical contact appliance for light-ships, and other vessels, characterized by a frame a with an outside slit, placed all around the vessel, and a spindle e moving freely in internal groove m of the frame a by means of sliding rollers l, insulated metal rings g h placed around said spindle and connected in a conducting manner with the branch wires p q of the current-supply cable o, and sliding contact-rails c d placed and insulated on the inside of the said frame a substantially as and for the purposes described.

In witness whereof I subscribe my signature in presence of two witnesses.

JÜRGEN HINRICH JUNGE.

Witnesses:

PAUL CHRISTIAN JULIUS BRANDT,

HERMANN HEINRICH WILHELM WEHRMANN.