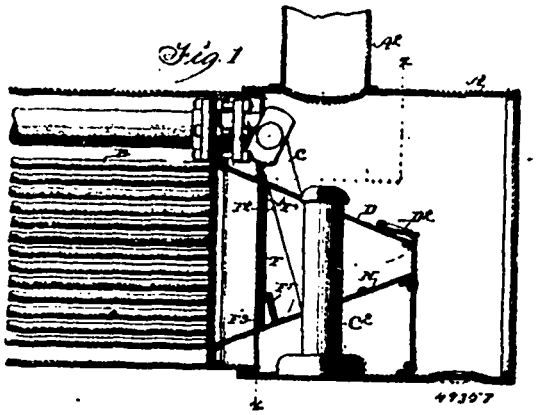
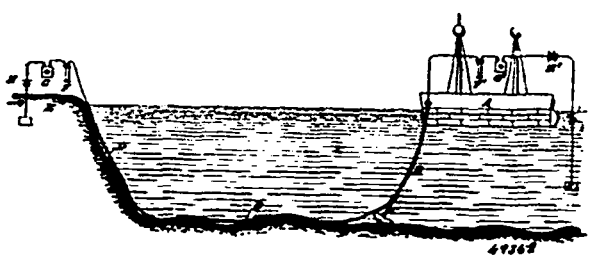
cylinder, of a flat metal plate extending from the lower end of the boiler forwardly and upwardly and a diaphragm located in advance



of the boiler above said plate and having two or more horizontal draft passages therein and means for opening and closing said draft passages, for the purpose stated. 2nd. The combination, with a locomotive boiler and cylinder, of a flat metal plate extending from the lower end of the boiler forwardly and upwardly, a deflector plate extending from the top of the boiler downwardly and forwardly, a damper on the lower end of the deflector, a diaphragm located in advance of the boiler and two or more horizontal draft passages therein and means for opening and closing said draft passages, for the purposes stated. 3rd. The combination, with a locomotive boiler and cylinder, of a diaphragm located in the cylinder in advance of the boiler having a perforated central portion and openings at its top and bottom, two dampers hinged to the diaphragm for covering said openings and means for independently operating the dampers from the exterior of the cylinder, for the purposes stated. 4th. The combination, with a locomotive boiler and cylinder, of a diaphragm located in the cylinder in advance of the boiler having a perforated central portion and openings at its top and bottom, two dampers hinged to the diaphragm for covering said openings and means for independently operating the dampers from the exterior of the cylinder, a deflector plate leading from the top of the boiler forwardly and downwardly as shown, a damper hinged to its forward end and means for operating said damper from the exterior of the cylinder, for the purposes stated. 5th. The combination with a locomotive boiler and cylinder, of a diaphragm located in the cylinder in advance of the boiler having a perforated central portion and openings at its top and bottom, two dampers hinged to the diaphragm for covering said openings, means for independently operating the dampers from the exterior of the cylinder, a deflector plate leading from the top of the boiler forwardly and downwardly as shown, a damper hinged to its forward end and means for operating said damper from the exterior of the cylinder, and a flat metal plate leading from the bottom of the boiler upwardly and forwardly, all arranged and combined substantially as and for the purposes stated.

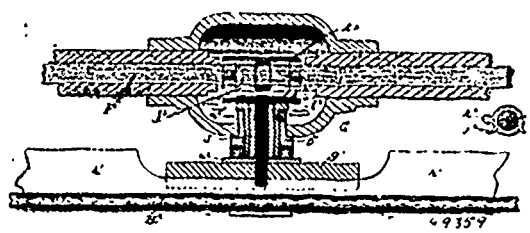
No. 49,358. Sub-marine Signalling.
(*Système de signal sous-marin.*)



Lucien I. Blake, Lawrence, Kansas, U.S.A., 2nd July, 1895; 6 years.

Claim.—1st. A system of signalling between an anchored light-ship and the shore, comprising in combination telephonic or telegraphic signalling instruments and batteries on the ship and shore respectively, an insulated cable extending from the shore station to the ship's anchor with which the core of the cable is electrically connected, a conducting anchor-chain or hawser, and a circuit on the ship from said chain to a submerged metallic plate, said circuit including the signalling instruments on the ship, as set forth. 2nd. In a system of signalling between an anchored light-ship and a short station, the combination with telephonic signalling instruments at the shore station, and telephonic signalling instruments on the ship, of an insulated cable extending from the instruments on shore to a point near the anchor, a conducting anchor chain or hawser, a transformer interposed between the cable and the chain and having its low resistance coil in circuit with the anchor chain and its high resistance coil in circuit with the cable, and a circuit leading from the anchor chain to a submerged plate over the ship's side and including the instruments on the ship.

No. 49,359. Insulator for Electric Wires, Etc.
(*Isolateur pour fil électrique, etc.*)



Wilber Ruben Hitchcock, Cornwall, Ontario, and Lewis King McLaurin, Templeton, Quebec, both in Canada, 2nd July, 1895; 6 years.

Claim.—1st. In combination, a tubular conduit, a yoke within the conduit for securing the sides and top of the conduit together, track rails spaced from the conduit, tie rods secured at their outer ends directly to the rails, and nuts for securing the inner ends of the tie rods, the sides of the conduit and the yoke rigidly together, substantially as set forth. 2nd. A sectional working conductor, comprising suitable insulating blocks, and sections jointed together by said insulating blocks, each of said sections comprising a wire and a strip of conducting material encasing said wire, the two edges of the strip being brought together and turned upwardly to form a stiff rib, whereby the said section is made rigid, vertically, substantially as set forth. 3rd. In combination, a conduit, an insulated feeder extending along the conduit, insulated casings for supporting the feeder spaced apart along the conduit, a sectional conductor extending along the conduit directly beneath the insulated feeder, and connecting pins extending from the sectional conductor up into the insulated casings, said pins being adapted to contact directly with the feeder when the said sectional conductor is raised, and adapted to fall away from the feeder by gravity when the conductor is released, substantially as set forth. 4th. The combination with the insulated feeder F, and conducting pin I, of the spring clip j^1, held by the bolted clasp k^1, the disk k^3, secured to the pin I, and the mica insulators n^2, substantially as set forth.

No. 49,360. Packing. (*Garniture.*)

James Walker Peelle, Louisa Willan Peelle and Sarah Smith Peelle, all of Brooklyn, New York, U.S.A., 2nd July, 1895; 6 years.

Claim.—1st. An improvement in the art of making packings which consists in immersing dry packing in a bath of lubricants, then removing said packings from the bath, and then drying and coating the same with a metallic powder. 2nd. An improvement in the art of making packings which consists in immersing dry packing in a bath of lubricants, then removing said packing from the bath and then drying the same and before completely dried coating them with a metallic powder. 3rd. An improvement in the art of making packings which consists in heating said packings in a high temperature, then immersing said packings in a limpid bath of lubricants, then removing said packings from the bath, and then drying the same and before completely dried coating them with a metallic powder. 4th. In the art of making packings, a bath for said packings composed of non-animal oils, wax, and a finely powdered metal, softer then iron. 5th. In the art of making packings, a bath for said packings consisting of a mineral oil, rape-seed oil, wax, and a finely powdered metal, softer than iron. 6th. In the art of making packings, a bath composed of non-animal oils, and wax heated to a limpid state, and a finely powdered metal, softer than iron. 7th. As an article of manufacture, a packing having an outer coat of finely powdered metal, softer than iron. 8th. As an article of manufacture, a packing consisting of a body and having as part of its elements, oils, wax, and a finely powdered metal, softer than iron. 9th. As a new article of manufacture, a packing consisting of a body, oils, wax, and finely powered metal softer than iron within the body, and a coating of said powdered metal in said body. 10th. As a new article of manufacture, a packing the body of which is made of layers of duck alternated with layers of gum rubber having their sides coated with a layer composed of gum rubber and fine divided mica.

No. 49,361. Spindle for Spinning Machines. (*Broche pour machines à filer.*)

Herbert Hortentious Ham, Boston, Massachusetts, U.S.A., 2nd July, 1895; 6 years.

Claim.—1st. In combination a bolster and whirl, said parts being formed upon opposing faces with ball bearings and balls mounted in