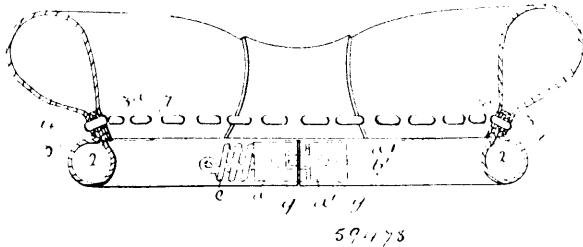


the pin to hold it in its keeper, said stop being movable vertically with the arms and laterally by the engagement of the pin with the inclined portion of the stop, substantially as described. 3rd. A wire safety-pin, comprising a body portion and a pin proper, a keeper formed at the forward end of the body portion, a coil located above said keeper, rearwardly extending arms leading from said coil and lying on opposite sides of the body portion, one of said arms being bent at its forward end to form a stop having a downwardly and outwardly inclined portion, and a horizontally-disposed portion extending across above the pin to hold it in its keeper, and then being bent to form a spring loop to straddle the other arm and the body portion, said stop being movable vertically with the arms against the spring action of the coil and laterally against the spring action of the loop by the engagement of the pin with the inclined portion of the stop, substantially as described. 4th. A wire safety-pin, comprising a body portion and a pin proper, a keeper formed at the forward end of said body portion, a coil located above said keeper, rearwardly extending arms leading from said coil, and a stop at the forward end of one of said arms. 5th. A wire safety-pin, comprising a body portion and a pin proper, a keeper formed at the forward end of said body portion a coil located above said keeper, rearwardly extending arms leading from said coil located one on each side of the strand constituting the main portion of the body part, and having a flange constituting a finger-engaging portion, one of the said arms being bent at an angle at its forward end, forming a stop, the spring pressure exerted by said coil serving to hold said arms in their normal position.

**No. 59,478. Horse Collar. (Collier à cheval.)**



Henry Laurence Gulline, Granby, Quebec, Canada, 1st April, 1898; 6 years. (Filed 10th March, 1898.)

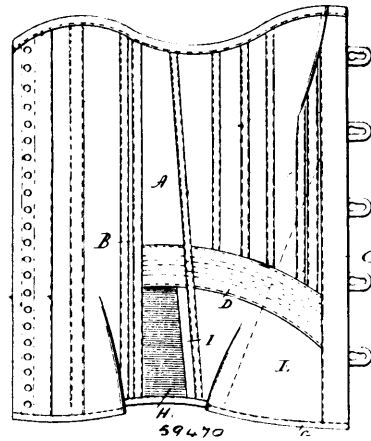
*Claim.*—1st. A horse collar rim made of metal and having a hollow body portion and a three-ply closed and perforated flange extending the full length of the rim, as set forth. 2nd. A horse collar rim made of metal and having a hollow body portion and a perforated flange projecting tangentially therefrom, as set forth. 3rd. A horse collar rim made of metal and having a hollow body portion and a perforated flange projecting therefrom, the base of the flange being located toward the inner side of such body portion, as shown and described. 4th. A horse collar rim composed of two like halves united at the throat portion by a spring hinge connection, as set forth. 5th. A horse collar rim made of metal and having hollow body halves connected together by a spring hinge connection at the throat portion. 6th. A horse collar rim composed of two like hollow metal halves united at the throat portion by a spring hinge connection comprising block pieces set in the ends of the rim halves and united by a knuckle joint, and a spiral spring with one end bearing in one block piece and a portion of its length passed through the block pieces so that its other end may bear upon the other block piece, the block pieces being hollowed and slotted to accommodate such spring, as set forth.

**No. 59,479. Corset. (Corset.)**

Franklin Kellogg Hickok, New Haven, Connecticut, U.S.A., 1st April, 1898; 6 years. (Filed 14th March, 1898.)

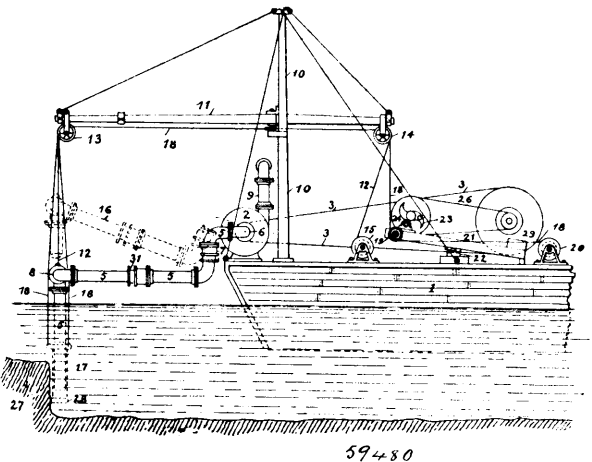
*Claim.*—1st. The herein described corset having a triangular boned auxiliary section secured at its front edge to the front edge of the inner face of the corset proper, and at its lower edge to the lower edge of the corset proper, between which lines of attachment said section is free from the body of the corset, the bones of the said section extending parallel with the free edge thereof, substantially as described. 2nd. The herein described corset, having a front section and a side stay, said front section comprising the upper boned portion and a lower unboned portion connected by a curved strip extending forward and downward from said side stay, and an auxiliary boned stay extending from the forward edge of the corset rearward and downward over its inner face to the lower edge thereof, and so that the bones of the auxiliary stay cross the bones of the front section angularly at substantially the waist line, substantially as described. 3rd. The herein described corset having a front section and a side stay, said front section comprising an upper boned portion and a lower unboned portion connected by a curved strip extending downward and forward from the said side stay, an elastic section connected at its rear edge with the forward edge of said side

stay, and at its forward edge to a short boned stay which extends downward from the lower edge of the curved strip to the lower edge



of the corset, which short stay is secured to the lower unboned portion of the front section, substantially as described.

**No. 59,480. Dredging Machinery. (Machine à draguer.)**



Ferdinand W. Krogh, San Francisco, California, U.S.A., 1st April, 1898; 6 years. (Filed 14th March, 1898.)

*Claim.*—1st. In suction dredging machinery, a pump, a jointed or flexible suction pipe and a vertically reciprocating barrel or cylinder surrounding and moving parallel to the suction pipe at its outer or intake end, substantially as specified. 2nd. In suction dredging machinery, a pump and a jointed or flexible suction pipe, means to suspend or swing the latter, a reciprocating cutting or disintegrating cylinder, surrounding, sliding upon and extending beyond the pipe, substantially as specified. 3rd. In suction dredging machinery, a supporting barge or pontoon, a suction pipe mounted thereon or therein, and provided with a jointed suction pipe, means to raise, lower and swing the same, and a reciprocating cutting or disintegrating cylinder surrounding the end of the suction pipe and acting in alignment therewith, means to suspend the cutting cylinder independent of the suction pipe and adjust it vertically in relation thereto, substantially as specified. 4th. In suction dredging machinery, a movable supporting barge or pontoon, a suction pump mounted thereon, a jointed suction pipe adapted to swing in the arc of a circle and means to suspend and move the same, an independently suspended cutting cylinder or excavator, surrounding and sliding upon the outer or lower end of the suction pipe, and means to adjust and reciprocate the cutting cylinder, substantially as specified. 5th. In suction dredging machinery, a pump and a jointed suction pipe, a suspended reciprocating cutting cylinder surrounding and moving on the outer or lower end of the suction pipe, a rope or chain to suspend and adjust the cutting cylinder, and reciprocating mechanism acting in the bight of the suspending rope or chain, by means of which the cylinder is given a reciprocating movement independent of its vertical adjustment, and in respect to the such pipe on which it moves, substantially as specified.