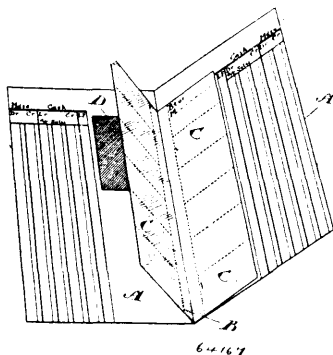
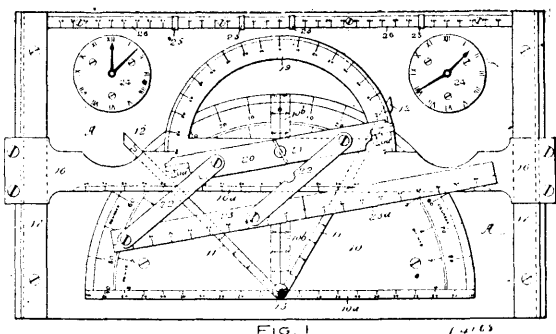


pose specified. 3rd. In an account book, an account sheet in combination with detachable slips secured to a stub bound in with the



sheet, so that the slips overlap a portion of the same, the said sheet outside the slips being ruled with account columns, substantially as and for the purpose specified. 4th. In an account book, an account sheet in combination with detachable slips secured to a stub bound in with the sheet so that the slips overlap a portion of the same, the said sheet outside the slips being ruled with a ledger folio column, two Dr. and one Cr. cash columns, and Dr. and Cr. merchandise columns, substantially as and for the purpose specified.

No. 64,168. Instrument for Facilitating the Measurements of Trigonometrical Ratios. (*Instrument pour faciliter le mesurage de rapport trigonométrique.*)

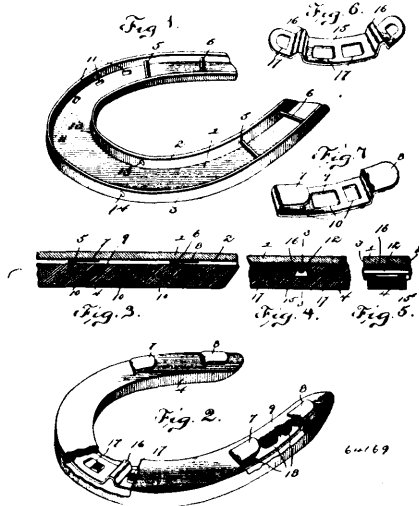


Francis Joseph Bayldon and Arnold Huddart Armstrong, both of Vancouver, British Columbia, Canada, 16th February, 1899; 6 years. (Filed 16th February, 1899.)

Claim.—1st. In an instrument for determining the trigonometrical ratios of triangles having a suitable base, a semi-circular plate, the outer arc of which is set off in degrees and points of the compass, the base 10^a , or cord of said plate set off in units from the centre and graduated each way, and a scale 10^b , dividing the said plate into quadrants of a circle set off from the centre in the same manner as the scale 10^a , pointers 11, pivoted to the centre of the base 10^a , the same being susceptible of being set at any angle on the protractor, and sights 12 and 13 on said pointers, in combination with a slidable bar 16, made to move to and from the base 10^a parallel thereto, a scale 16^a on such bar, a protractor 19, on the opposite side of said bar, a bar 20 pivotally fixed to the base line of said protractor, susceptible of being set at any angle on the protractor, and bevelled portions on the ends of said bar to facilitate the reading of the points set, of a bar 23 having a scale 23^a , marked on the rear side thereof, and made to move in parallel lines to the bar 20, and means for temporarily recording the time of an observation taken and distances traversed, substantially as and for the purpose set forth. 2nd. In an instrument for the purpose set forth, having a suitable base which may be permanently mounted on a support, a plate 10, having quadrants of a circle, its outer circle being laid off in degrees, an inner arc laid off in points of the compass, and its quadrantal divisions being laid off in units graduated from the centre, pointers 11, pivotally fixed to the centre of the convergence of the quadrant scales, said pointers susceptible of being moved in a parallel plane over the said plate, and clamped at any angle thereon independent of each other, sights on said pointers for aligning with an object to be sighted, a graduated bar 16, movably fixed on suitable slideways parallel to and at right angles to the quadrant scales on the said plate, a scale 16^a , on said bar corresponding to the quadrant scales, a protractor 19, integral with and on the same plane with said bar, a bar 20 pivotally fixed to the base of said protractor, the pivot of which aligns with its reading points 20, which lie over the protractor as it is swung round, a bar 23, having a graduated

scale similar to the scale 16, on the bar 16, made to move parallel to the bar 20, for temporarily recording the time of an observation taken and for checking the numbers or distances shown on the pointers 11, the scale 10^b , the scale 16, and the scale 23, as the case may be, substantially as and for the purpose set forth.

No. 64,169. Horseshoe. (*Fer à cheval.*)



Charlotte E. Galley, Buffalo, New York, U.S.A., 3rd October, 1899; 6 years. (Filed 20th February, 1899.)

Claim.—1st. In a device of the class described, the combination with a horseshoe, of a cushion arranged thereon and provided at its inner or upper face with means for attaching it to the horseshoe, substantially as and for the purpose described. 2nd. In a device of the class described, the combination with a horseshoe having a groove or channel and provided with cross pieces spanning the same, of a cushion arranged within the groove or channel and provided at its inner or upper face with tongues or anchors detachably interlocked with the cross piece, substantially as described. 3rd. A device of the class described, comprising a horseshoe, having a groove or channel and provided at opposite sides with cross pieces, a cushion fitting in the groove or channel, and the anchors mounted on the cushion and provided at the inner or upper face thereof with longitudinal tongues detachably interlocked with the cross pieces, substantially as described. 4th. A device of the class described, comprising a horseshoe provided with a groove or channel and having cross pieces, a cushion, and the anchors consisting of strips of metal imbedded in the cushion and having externally arranged tongues detachably interlocked with the cross pieces, substantially as described. 5th. A device of the class described, comprising a cushion provided at its inner or upper face with anchors or tongues, and a horseshoe provided with devices arranged to be engaged by the anchors or tongues, whereby the cushion is interlocked with the shoe, substantially as described. 6th. A device of the class described, comprising a shoe having inner and outer walls and provided at opposite sides with cross pieces, a continuous cushion provided at opposite sides with anchors for engaging the cross pieces, said cushion being provided at its front with an anchor forming an eye, and a fastening device engaging the eye and the shoe, substantially as described. 7th. A device of the class described, comprising a shoe, a cushion, a front anchor consisting of a strip of metal imbedded in the cushion and provided with bonds forming eyes, fastening devices engaging the eyes and the shoe, and means for securing the sides of the cushion to the shoe, substantially as described. 8th. A device of the class described comprising a shoe provided with inner and outer walls, a continuous cushion fitting between the walls and provided at its inner or upper face with anchors interlocked with the shoe at opposite sides thereof, and means for securing the front of the cushion to the shoe, substantially as described.

No. 64,170. Fastening for Stall Chains.

(*Attache pour chaînes de stalles.*)

Robert Irving, Corwin, Ontario, Canada, 3rd October, 1899; 6 years. (Filed 21st February, 1899.)

Claim.—1st. A fastening bar for chains, having recesses to receive and retain a removable attaching ring, and means for retaining said attaching ring within said recesses, substantially as described. 2nd. A fastening bar for chains, having a series of recesses formed therein, said recesses being adapted to receive and retain a removable fastening ring, and a set screw, mounted to close one of said recesses, said set screw being adapted to secure said ring in its operative position within said recesses, substantially as described. 3rd. A fastening bar for chains, comprising a shank portion, having one of