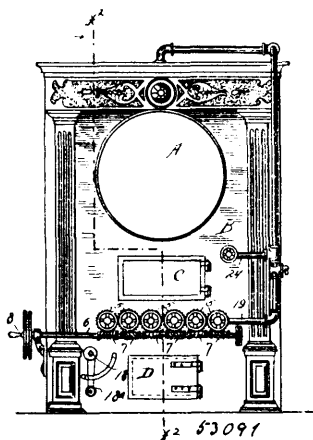
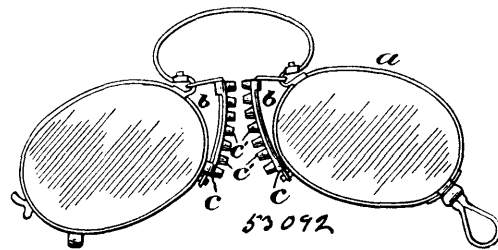


cent in opposite directions, and means, substantially as described for simultaneously shifting said bars laterally for varying the spacing



between said adjacent bars, substantially as set forth. 5th. In a furnace, the combination of the bearing-blocks 12, and the transverse supporting-tracks in which they are mounted, of the rotary grate-bars, the journals of which have bearings in said blocks, the lazy-tongs 13, connecting said bearing-blocks, and means for operating said lazy-tongs, substantially as set forth. 6th. The combination with the transverse tracks 10 and 11, the bearing-blocks 12 mounted therein, the lazy-tongs 13, connecting said blocks, the rack-bar 15, coupled to said lazy-tongs, the shaft and pinion for operating said rack-bar, and the guide for the latter, of the rotatively mounted, spirally-flanged grate-bars journaled in the respective bearing-blocks, substantially as set forth. 7th. The combination with the grooved transverse tracks 10 and 11, arranged one above the other, the bearing-blocks 12, mounted in said tracks and provided with lapping pieces 12^a, and the balls 12^b, interposed between the bearing-blocks and tracks, of the lazy-tongs 13, connecting together the bearing-blocks, the guided rack-bar 15, coupled to the lazy-tongs, the pinion 17, gearing with said rack-bar, the shaft of said pinion, and the spirally-flanged grate-bars, rotatably mounted in the respective bearing-blocks, substantially as set forth. 8th. In a furnace, the combination with the rotatably mounted, hollow grate-bars 1, having lateral air-inlets 23, of the steam-jet nozzles 20, mounted in the ends of the respective bars, the valve casings 21, connected with the outer ends of the respective nozzles 20, the valves 22, in the casings, adapted to control the admission of the steam to the nozzle from the casing, a steam supply-pipe connected with one of the valve-casings of the series, and pipes connecting the several casings, whereby the steam may flow through the latter, substantially as set forth. 9th. In a furnace, the combination with the spirally flanged hollow grate-bars, means for rotating or rocking said bars, and means for shifting said bars laterally to vary the interspacing, of the steam-jet nozzles 20, mounted in the outer ends of the respective grate-bars, the valve casings 21, connected with the respective nozzles 20, and the steam-pipe 19^a, connecting the adjacent valve-casings, each of said steam-pipes extending through and being adapted to play in a gland in one of said valve-casings in order to accommodate the steam-connections to the lateral shifting of the grate-bars, substantially as set forth. 10th. In a furnace, the combination with the fuel-supporting grate, the bridge-wall, and a steam-supply pipe 24, of the sectional super-heating pipe 25, composed of sections provided with interlocking, tapered dovetail couplings, substantially as described, whereby the pipe may be replaced in sections without cooling the furnace, substantially as set forth. 11th. In a furnace, the combination with the bridge-wall at the back of the combustion-chamber and the grate for supporting the fuel, a steam generator, and a steam-supply pipe 24, connected therewith, of a sectional pipe 25, extending through the four walls of the furnace, one transverse branch being adjacent to the bridge-wall and the terminal transverse branch, which crosses the combustion-chamber at the front, provided with jet-apertures, the pipe 24 being connected with and adapted to supply steam only to the pipe 25, substantially as set forth. 12th. A furnace grate or fire-bed having its entire fuel-bearing surface composed of rotatively mounted grate-bars having right and left-hand interlocking or intermeshing spiral flanges, and having means for simultaneously rotating or rocking all of said bars, and means for shifting said bars laterally, substantially as set forth. 13th. A furnace having its entire fuel-bearing surface composed of rotatively mounted hollow grate-bars, provided with right and left-hand intermeshing spiral flanges, alternating bars having rounded flanges 2, which engage with concave interspaces 2^a, between the flanges on the other bars, said furnace having means for introducing steam and air to the fuel through said bars, means for rocking said bars, and means for separating said bars laterally, substantially as set forth.

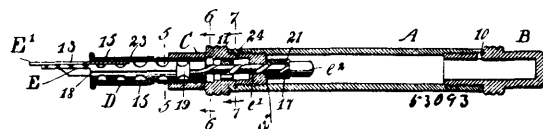
No. 53,092. Eyeglass and Holder therefor. (Pince-nez.)



Charles John Bailey, Newton, Massachusetts, U.S.A., 3rd August, 1896; 6 years. (Filed 23rd June, 1896.)

Claim.—1st. An eyeglass having a nose piece provided with a holding surface presenting a series of flexible feet to operate substantially as described. 2nd. An eyeglass having a nose piece provided with a holding surface presenting a series of hollow flexible feet, to operate substantially as described. 3rd. An eyeglass having a nose piece, composed of a tubular back and a series of projecting feet, to operate substantially as described. 4th. An eyeglass having a nose piece, composed of a back, a portion of which is made to surround the nose piece leaving the feet attached to the back to bear against the nose, to operate substantially as described. 5th. The within described rubber holding surface for eyeglass nose pieces, the same provided with a series of cellular projections, substantially as described.

No. 53,093. Fountain Pen. (Plume à réservoir.)



Carl Julius Renz, New York, State of New York, U.S.A., 3rd August, 1896; 6 years. (Filed 24th June, 1896.)

Claim.—1st. In a fountain pen, a feeder provided on its under side with cavities, and a longitudinal groove on each side connecting said cavities, and passages for conducting the ink from the lower to the upper surface of the feeder, substantially as described. 2nd. In a fountain pen, a barrel having an apertured partition therein, reducing the diameter of the barrel, and a feeder mounted to slide through said partition, extending within and without the barrel, whereby when the feeder is moved in one direction a vacuum space in the barrel is reduced, and whereby through air pressure the ink is forced out from the barrel, and upon moving the feeder in a contrary direction said vacuum space is enlarged and through suction the ink is retained in said barrel, as set forth. 3rd. In a fountain pen, a barrel, and a feeder adjustable in the said barrel, the feeder being provided with a valve arranged to regulate the supply of ink from the barrel to the feeder upon the adjustment of the latter, as and for the purpose specified. 4th. In a fountain pen, a feeder provided with basins for the reception of ink, said basins being connected by grooves, the point of the feeder adapted for engagement with the nib of the pen being apertured, as and for the purpose specified. 5th. In a fountain pen, a feeder comprising a body and a shank of less diameter than the body, the body having a tapering form and provided with top and bottom basins, corresponding basins at the top and bottom being connected, as and for the purpose specified. 6th. A feeder for fountain pens, of tapering shape and provided with basins at top and bottom, grooves connecting the basins at the top, and openings passing through the basin portions of the feeder from top to bottom, as and for the purpose specified. 7th. A feeder for fountain pens, provided with series of basins at the top and at the bottom, sundry of the basins at the top and bottom being in registry, and all of the basins having openings made therein, extending through from top to bottom, and the feeder being further provided with a series of longitudinally located grooves, as and for the purpose specified. 8th. A feeder for fountain pens, provided with basins at top and bottom and openings extending through the basin portions of the feeder, the said feeder being provided with a shank of less diameter than the basin portion, and a collar loosely mounted on the said shank, as and for the purpose specified. 9th. A feeder for fountain pens, provided with basins at top and bottom and openings extending through the basin portions of the feeder, the said feeder being provided with a shank of less diameter than the basin portion, and a collar loosely mounted on the said shank, together with a fixed collar adapted at predetermined times to shut off the supply of ink from the barrel of the pen to the feeder when the feeder is connected with the barrel, as and for the purpose specified. 10th. In a fountain pen, the combination, with a barrel having an exit opening for the ink, and a