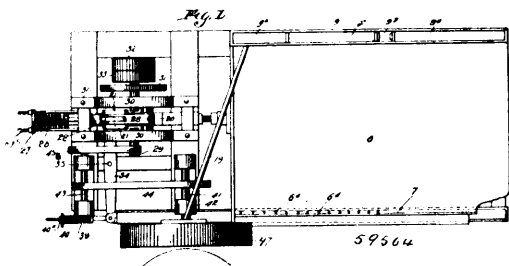


which is not greater than the ankle measurement of the shoe, said parts being movable one with relation to the other to reduce the heel measurement of the form to said ankle measurement of the shoe, substantially as described. 6th. A shoe shaping or treeing form adapted for shaping a shoe, the ankle measurement of which is less than its heel or instep measurement, said form having means for expanding it whereby the shoe is shaped, and having means for reducing it, whereby said shoe, with its top or ankle portion closed may be drawn off said form, substantially as described. 7th. A shoe shaping or treeing form composing essentially of a back part and a fore-part, the instep measurement of which is not greater than the ankle measurement of the shoe said parts being movable toward and from each other, and also in and out with relation to each other, the heel measurement of the form reduced to the ankle measurement of the shoe when the parts thereof are closed together and extended. 8th. In a shaping machine for boots and shoes, a form having a heel, and a fore part, the shank of which adjacent the heel is removed, one of said parts being movable with relation to the other, to reduce the heel measurement of the form to the ankle measurement of the shoe, and means for expanding said form, substantially as described. 9th. In a shaping machine for boots and shoes, the combination of a back leg portion having a heel, and a sliding fore part the shank of which adjacent the heel is cut off obliquely, thereby diminishing the thickness of the instep, substantially as described. 10th. In a shaping machine for boots and shoes, the combination of a back leg portion having a heel, and a sliding fore part the shank of which adjacent the heel is removed, said heel and fore part gradually approaching each other as the boot or shoe is withdrawn, substantially as described. 11th. In a shaping machine for boots and shoes, the combination of a back leg portion having a heel, a fore part, the shank of which adjacent the heel is removed, and a slide to which said fore part is detachably connected, substantially as described. 12th. In a shaping machine for boots and shoes, the combination of a back leg portion having a heel, and a sliding fore part the shank of which adjacent the heel is removed, said heel and fore part gradually approaching each other as the boot or shoe is withdrawn, substantially as described. 13th. In a shaping machine for boots and shoes, the combination of a back leg portion having a sliding heel piece, and a sliding fore part the shank of which adjacent the heel is removed, substantially as described. 14th. In a shaping machine for boots and shoes, the combination of a back leg portion having a sliding heel piece, and a forepart the shank of which adjacent the heel is removed, a slide to which it is connected, and a shin piece connected with said slide, substantially as described. 15th. In a shaping machine for boots and shoes, the combination of a back leg portion having an oblique sliding heel piece and a sliding fore part, the shank of which adjacent the heel is removed, substantially as described. 16th. In a shaping machine for boots and shoes, the combination of a back leg portion having an oblique sliding heel piece, a frame having a slide, a shin piece detachably connected thereto, and a fore part connected to said shin piece, the shank of which is removed adjacent the heel, substantially as described. 17th. In a shaping machine for boots and shoes, the combination of a back leg portion having a heel, a sliding forepart, the shank of which adjacent the heel is removed, a support for said sliding fore part, and an expanding device for spreading the parts, substantially as described. 18th. In a shaping machine for boots and shoes, the combination of a back leg portion having an oblique sliding heel piece, a frame carrying a slide, a detachable shin piece connected thereto, a fore part connected to said shin piece, the shank of which is removed adjacent the heel, and an expanding device for spreading the parts, substantially as described.

No. 59,504. Ore Concentrator. (*Concentrateur de minerai.*)



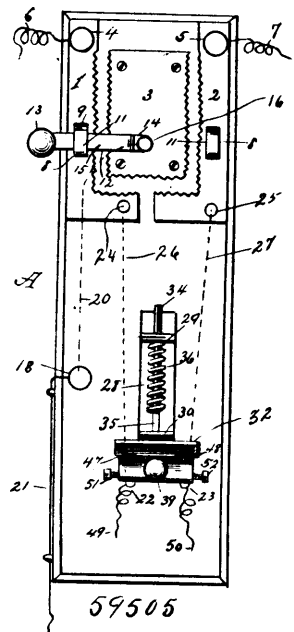
Arthur R. Wilfley, Denver, Colorado, U.S.A., 4th April, 1898; 6 years. (Filed 16th March, 1897.)

Claim.—The combination with a suitable frame, of a transversely inclined table movably mounted thereon and having apertures in the lower edge, a narrow tapering strip attached to the table below said apertures, a trough located below the lower edge of the table and adapted to catch the material which passes through said apertures, an inclined flange attached to the lower edge of the table over which the gauge passes, said flange extending nearly to the tail of table, the unflanged part of which allows the material to pass into the trough, a toggle mechanism for imparting a reciprocating movement to the table, and a lever connection between the

table, and a trough for actuating the latter, the arrangement being such that when the table is moving in one direction, the trough is moving in the opposite direction, as and for the purpose set forth.

No. 59,505. Telegraph Switch.

(*Aiguillière pour telegraphes.*)



James S. Allen, Halsey, Nebraska, U.S.A., 4th April, 1898; 6 years. (Filed 16th August, 1897.)

Claim.—1st. In a telegraph switch, the combination with contact pins, of guide arms, a plunger having a cylindrical portion working in one of the guide-arms, and a flat portion working in the other guide-arm, of a coil-spring for urging the plunger downward, and a contact-plate carried on the end of said plunger and adapted to normally establish electrical connection between the contact-pins. 2nd. In a telegraph switch, the combination with contact pins electrically connected to the line wires of a spring-actuated plate, and a removable cut-out plug provided with separated contact-strips which are electrically connected to the instrument wires, said plug being adapted for insertion between the plate and the pins, said plate serving to retain the plug and keep the contact-strips bearing against the contact-pins. 3rd. In a telegraph switch, the combination with contact pins, of a spring-pressed plate, and a cut-out plug having centrally grooved contact-strips, said plug being adapted for insertion between the spring pressed plate and the pins, and said plate serving to retain the plug and hold it so that the pins will lie in the grooves of the contact-strips. 4th. In a telegraph switch, the combination with contact pins connected to the line-wires, of a spring-pressed plate normally adapted to contact with said pins having a portion inclined in relation to the contact-pins, and a cut-out plug having a bevelled lower edge adapted to ride on the inclined portion of the spring-pressed plate, said cut-out plug being provided with contact-strips, and said spring-pressed plate being adapted to press the cut-out plug against the contact-pins so that the contact strips will be in electrical connection with said contact-pins. 5th. In a telegraph switch, the combination with a lightning arrester having respective plates connected to the line-wires and provided with ground-plate, of contact-springs having parallel lips and located on the respective line-plates, and a pivoted spring switch-arm adapted to be inserted between the lips of the contact-spring. 6th. In a telegraph switch, the combination with a lightning arrester consisting of plates connected to the line-wires and another plate connected to the ground-wire, and a pivoted switch-arm adapted for manipulation to electrically connect the ground-plate with either line-plate, of contact-pins electrically connected to the line-plates of the lightningarrester, and a cut out plug having contact-strips electrically connected to the instruments, said contact-springs being adapted for electrical connection with the contact-pins.

No. 59,506. Electric Furnace. (*Fournaise électrique.*)

Francis Jarvis Patten, New York, State of New York, U.S.A., 4th April, 1898; 6 years. (Filed 15th April, 1897.)

Claim.—1st. The method of operating an electric furnace which consists in passing the material to be operated upon between electrodes, subjecting the arc to the influence of a magnetic field whose lines of force are substantially transverse to the direction of the arc, and reversing or alternating either the current in the arc or the