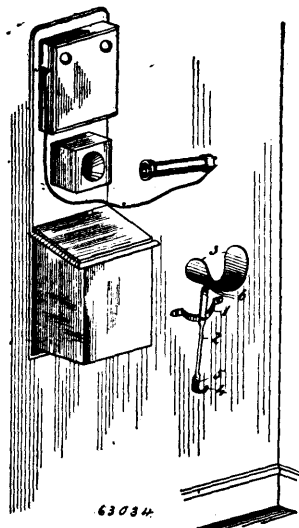


with a strap or clamp which holds and encircles said offset ends when the sections are filled with air, as set forth. 2nd. In a bicycle tire, a pneumatic tube made of sections, the ends of the sections being offset and depressed, and thinner than the balance of the tire, in combination with a strap which encircles said offset ends to form a tight joint, as set forth. 3rd. In a bicycle tire, a pneumatic tire, made of sections having offset ends, in combination with a clamp or strap for holding said sections in place, an annular groove on the offset ends fitted by a bend on the clamp or strap to form a tight joint, as set forth. 4th. In a bicycle tire a series of sections A, having offset ends B, in combination with strap D, held to the tire rim E, by plate F, and screw nut connection, as set forth. 5th. In a bicycle tire, a series of sections A, having depressed offset B, strap D, rim E, plate F, head M, fitting annular groove L, all combined as set forth.

**No. 63,034. Telephone Arm Rest.**

(Appui-bras pour téléphones.)

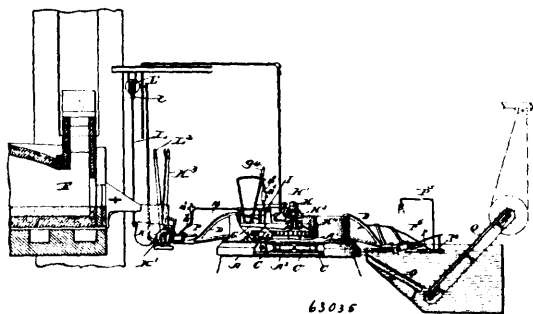


Robert M. Bell, Brockville, and John G. Smith, Glenmore, Ontario, assignee of David D. McDonnell, Montreal, Quebec, all of Canada, 8th May, 1899; 6 years. (Filed 30th August, 1898.)

*Claim.*—A telephone arm-rest, comprising a curved bar 1, having ends bent in alignment and adapted to be secured horizontally to a wall, a bar crossing said bar and riveted thereto at the intersection, the lower end adapted to be secured to a wall, and the upper end bent outwardly and horizontally, and an upwardly curved arm-plate 3, riveted to said bent portion of bar 2, as set forth.

**No. 63,035. Metal Casting Apparatus.**

(Appareil de moulage.)



Arthur L. Walker, Baltimore, Maryland, U.S.A., 9th May, 1899; 6 years. (Filed 7th January, 1899.)

*Claim.*—1st. In a casting apparatus, the combination with a ladle, of a circular track laid upon a fixed foundation, a shaft fixed to said foundation and arranged concentric with said track, a carrier wheel resting on and supported wholly by the track and mounted on said shaft to have a determined or fixed plane of rotation, mould-carrying brackets adjustably hung upon the rim of said carrier-wheel, and a mould mounted in two adjacent brackets, whereby a series of removable moulds of different kinds may be supported upon the rim

of the carrier wheel, substantially as described. 2nd. In casting apparatus, the combination of a shaft, a carrier wheel rotatably mounted thereon, mould-carrying brackets hung upon the rim of said wheel and adjustable thereon relatively to each other, and a mould mounted in two adjacent brackets, whereby a series of removable moulds of different kinds may be supported upon the rim of the carrier wheel, substantially as described. 3rd. In casting apparatus, the combination of a circular track, a shaft arranged concentric therewith, a carrier-wheel consisting of a hub rotatably mounted on said shaft, spokes or arms radiating therefrom and a broad annular rim secured to said arms and provided with a broad base-bearing, anti-friction bearing interposed between said base-bearing and the track, detachable mould-carrying brackets, each provided with a hook engaging the rim of the carrier wheel, and adjustable thereon, and a mould mounted in two adjacent brackets, whereby a series of removable moulds of different kinds may be supported upon the rim of the carrier wheel, substantially as described. 4th. In casting apparatus, a rotatable mould-carrier-wheel, a series of mould supporting brackets adjustably hung on the rim of said wheel, each bracket having an arm projecting beyond said rim and provided with a bearing, and a mould provided with trunnions adapted to be mounted in the bearings of two adjoining bracket-arms, whereby an annular series of removable moulds of different kinds may be supported upon said bracket arms around the outer circumference of the rim of the wheel, substantially as described. 5th. In casting apparatus, a rotatable mould-carrier wheel, a series of mould supporting brackets adjustably connected with the rim of said wheel, each bracket having an arm provided with an angular bearing recess, a mould provided with trunnions mounted in the bearing recess or two adjoining arms, and bushings adapted to be inserted in said bearing recesses to vary the angles of inclination thereof, whereby moulds of different length may be supported, substantially as described. 6th. In casting apparatus, a rotatable mould-carrier-wheel, a series of mould supporting brackets adjustably connected with the rim of said wheel, each bracket having an arm provided with a bearing recess and a cross-bar in rear thereof, and a mould provided with trunnions arranged between the centre of gravity and the front end thereof, and journaled in said recesses, and provided with a bearing flange at its rear adapted to rest upon said cross-bar, substantially as described. 7th. In casting apparatus, a rotatable mould-carrier-wheel, a series of mould supporting brackets adjustably connected with the rim of said wheel, each bracket having an arm provided with a bearing recess and a cross bar in rear thereof, the mould provided with trunnions arranged between the centre of gravity and front end thereof and journaled in said recesses and provided with a bearing flange at its rear adapted to rest upon said cross bar and means for tilting the moulds to dump the castings, substantially as described. 8th. In casting apparatus, the combination with a furnace having a discharge spout, of a mould carrier, a tilting ladle arranged between the spout and mould carrier, a support above said ladle, a lift held by said support, a connection between said lift and the rear end of the ladle, a hanger and a deflector device connected with said hanger and provided with a handle projecting toward said mould carrier, substantially as described. 9th. In casting apparatus, the combination with a furnace, of a rotatable mould carrying wheel provided with mould supporting brackets, a rock shaft, bracket arms rigidly secured to said shaft, a ladle interposed between the furnace and mould carrier and having a mouth provided on opposite sides with trunnions journaled in said bracket arms, and means for supporting and tilting the rear end of the ladle, substantially as described. 10th. In casting apparatus, the combination with a furnace, of a rotatable mould carrier wheel provided with mould supporting brackets, a rock shaft, bracket arms rigidly secured to said shaft, a ladle interposed between the furnace and mould carrier and having a mouth provided on opposite sides with trunnions journaled in said bracket arms, a supporting bracket arm, a connection between the bracket arm and rear end of the ladle for supporting the same, a lever connected with the rock shaft, and a deflector above the mould and provided with a handle projecting over toward the carrier, substantially as described. 11th. In casting apparatus, the combination of a furnace having a discharge spout, a tilting ladle having a pouring mouth and pivoted adjacent to said mouth, a hydraulic lift and the rear end of the ladle, a hanger rod and a deflector device carried by said rod adjacent the mouth of the ladle, substantially as described. 12th. The combination with a furnace, having a discharge spout, of a rotary mould carrier provided with mould supports, a tilting ladle interposed between said spout and carrier and provided with a pouring lip arranged vertically above the path of rotation of the moulds and adapted to discharge the molten metal directly into a mould on said carrier, and a pivoted deflector device comprising a pan or vessel arranged when in operative position to rest within the mouth of a mould, substantially as described. 13th. In an organized casting apparatus, the combination with a furnace having a discharge spout, of a rotary mould carrier adapted to be given an intermittent, step-by-step movement to successively bring each mould carried thereby in line with said spout, a ladle arranged under the spout with its pouring lip located just above the path of the moulds, and pivoted adjacent to said lip so that when tilted slightly it will discharge the metal directly with a minimum fall into the mouth of the mould beneath it, means for tilting said ladle, and a pivoted deflector device comprising a pan or vessel arranged when in opera-