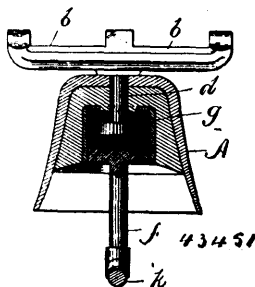


the front axle and arranged to engage with said screw threads to change the position of the front axle, substantially as specified. 3rd. In a car or vehicle, a shaft connected to a motive power to transmit power to the rear axle, an adjustable double friction gearing, and a friction pinion, in combination with an operating shaft having a longitudinally adjustable double friction gearing, and connected by gearing with the rear axle, and a steering journal provided with a friction gearing and connected by gearing with its front axle whereby the motor may operate the rear axle and wheels, and also change the position of the front axle, substantially as and for the purpose set forth. 4th. The combination, with a car or vehicle, of a motor and driving shaft, with a double friction gearing the bore of whose hub is provided with a groove or spline, a sliding collar on said hub with means for connecting the same to a rod and lever, anti-friction rollers on each side of said collar, and two springs located on said hub on opposite sides of said collar, all substantially as shown. 5th. The combination, with a car or vehicle, of a bed plate attached by bearings to the rear axle and pivotally attached to the front axle, said axles each provided with a gear wheel, in combination with two gear wheels supported in journals and located respectively above the center of each axle, and means for transmitting the motion of the rear axle, through said gear wheels, to the front axle regardless of the relative position of said axles, all substantially as shown. 6th. The combination, with a car or vehicle having a motive power attached, of a shaft and pinion for transmitting power from said motor to the rear axle of the vehicle, gear wheels upon said axle, friction clutches connected, adjusted and arranged to engage the hubs of, and drive said gear wheels, said gear wheels arranged to mesh with the pinion on the power transmitting shaft and with a pinion between their upper edges and at right angles with them, said pinion having a sprocket wheel attached above, a sprocket chain arranged to engage therewith and with a corresponding sprocket wheel above the front axle, pinions on said front axle driven by said sprocket chain and wheel, and arranged to drive said front axle through the medium of friction clutches, substantially as shown and described. 7th. The combination, with a car or vehicle having a motive power attached, of a shaft and bevel pinions for transmitting power from said motor to the rear axle of the vehicle, bevel gear wheels upon said rear axle each side of, and arranged to mesh with said pinion, and friction clutches connected by a yoke and arranged to engage with or disengage from said bevel gear wheels to impart the motion thereof to said front axle, all substantially as shown and described.

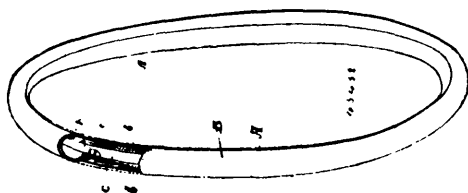
**No. 43,451. Insulator. (Isoloir.)**



Louis McCarthy, Boston, Massachusetts, U.S.A., 3rd July, 1893; 6 years.

*Claim.*—1st. An insulator comprising metallic portions separated by an interposed series of sheets of mica compressed together, securing devices by which said metallic portions and said mica are secured together, a mass of insulating material in which said metallic portions and said sheets of mica and their securing devices are embedded, and an outer metallic covering or case, substantially as shown and described.

**No. 43,452. Tire for Bicycles. (Bandage de bicycles.)**

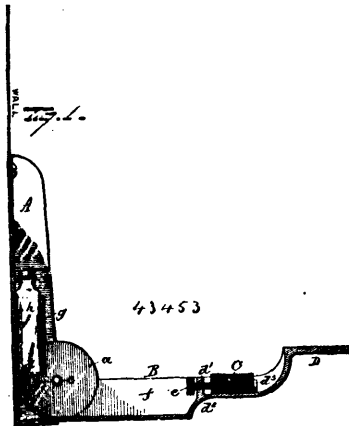


Hans James Caulfield, Toronto, Ontario, Canada, 3rd July, 1893; 6 years.

*Claim.*—1st. The combination with the rim, channel and wire bands bound in the edges of the envelope, of hexagonal couplings also bound in the edges of the envelope in alignment with the wire

bands, and having internal right and left hand threads to receive the threaded ends of the wire bands, as and for the purpose specified. 2nd. The combination with the rim, channel and wire bands bound in the edges of the envelope, of hexagonal couplings also bound in the edge of the envelope in alignment with the wire bands, and having internal right and left hand threads to receive the threaded ends of the wire bands, and slits extending inwardly from the edges of the envelope around and slightly past the coupling, as and for the purpose specified.

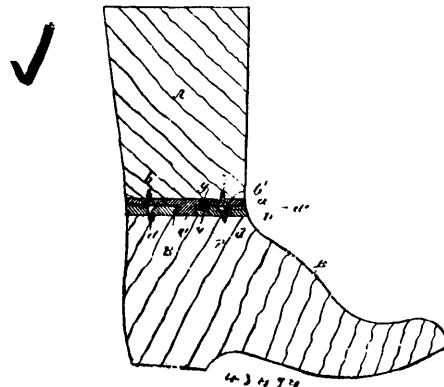
**No. 43,453. Blacking Outfit. (Appareil de cirage.)**



Augustus C. Barler, Chicago, Illinois, U.S.A., 3rd July, 1893; 6 years.

*Claim.*—1st. A blacking outfit comprising two parts hinged together, each part having a receptacle formed therein, one having a shoulder therein adapted to form an abutment for the pivoted end of the other end to strike when the device is open whereby a secure support is formed therefor, and the extreme free end forming a foot rest adapted to fall approximately into alignment with the back of the device when the parts are closed, substantially as set forth. 2nd. The combination with a stationary section comprising back and sides, and hinged section comprising front and sides, the edges of the sides of the two sections adapted to come together when the device is closed, the front of the hinged section curved inward at its lower end, and the other section having a shoulder which this curved end is adapted to strike when the device is opened, and a foot rest formed on the free end of the hinged section, substantially as set forth. 3rd. A blacking outfit comprising two members hinged together, one having two receptacles therein, one receptacle adapted to receive brushes and the other adapted to receive a blacking box, the latter receptacle having an adjustable device for removably securing the box in place, substantially as set forth. 4th. A blacking outfit comprising two members hinged together, one member stationary and the other member having a receptacle formed therein adapted to receive blacking brushes, this member also provided with a tread sufficiently raised from the receptacle so that a foot resting thereon will be above the articles contained in the receptacle, substantially as set forth.

**No. 43,454. Last. (Forme.)**



Henry Goodrick, of Montreal, Quebec, Canada, 3rd July, 1893; 6 years.

*Claim.*—1st. The combination with the separable component parts of a last, of interlocking plates secured on the meeting faces of same, for the purpose set forth. 2nd. The combination with the separable