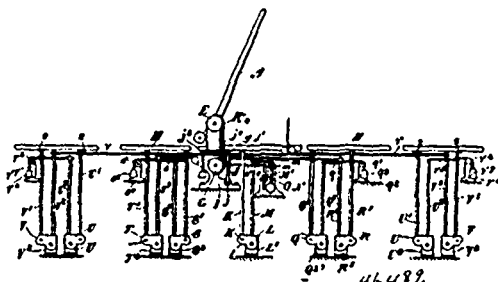


sulphuric acid, pulverized alum, bi-carbonate of soda, nitrate of soda, and spirits of petroleum combined in the proportions stated and in the manner described. 2nd. A non-explosive and non-odoriferous burning fluid consisting of the following ingredients, viz.: Irish potatoes, pulverized copperas, salt, sulphuric acid, pulverized alum, bi-carbonate of soda, nitrate of soda, spirits of petroleum, pyroigneous acid, oil of murvain and gum camphor combined in the proportions stated and in the manner described.

No. 46,489. Automatic Railway Gate and Signal.

(*Barrière et signal de chemin de fer automatique.*)

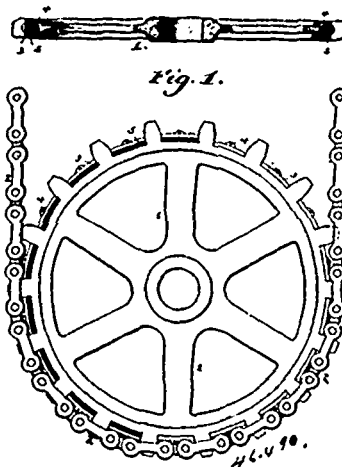


Edward Death and Edward W. Wyatt, both of Toronto, Ontario, Canada, 4th July, 1894; 6 years.

Claim.—1st. In an automatic railway gate and signal, a weighted gate journalled in a suitable standard and having a wheel connected by a belt to a corresponding wheel journalled beneath the road-bed, of a wire or cord having one end partially wound round the wheel and connected at the other end to an upright rigidly attached to a pivoted bell crank which has a vertical plunger pivotally connected to it at one end and extending upwardly so as to abut the bottom of the rail, and so arranged upon the subsidence of the rail the bell crank is tilted on its pivot so that the wire or cord is pulled to partially rotate the wheel journalled beneath the road-bed, as and for the purpose specified. 2nd. In an automatic railway gate and signal, a weighted gate journalled in a suitable standard and having a wheel connected by a belt to a corresponding wheel journalled beneath the road-bed, a wire or cord having one end partially wound round the wheel and connected at the other end to an upright rigidly attached to a pivoted bell crank which has a vertical plunger pivotally connected to it at one end and extending upwardly so as to abut the bottom of the rail so arranged, upon the subsidence of the rail the bell crank is tilted on its pivot, so that the wire or cord is pulled to partially rotate the wheel journalled beneath the road-bed, and means whereby such lower wheel is locked, so as to lock the gate down and unlock it so as to allow the gate to swing upwardly, as and for the purpose specified. 3rd. The combination with the gate A, provided with a weighted end B, pivoted at *a*, on the standard A¹, and having a wheel E, journalled on the pivot stud, of the belt F, connecting the wheel E, to the wheel G, the cord *r*, connected to the uprights R², of the bell cranks R, and the plungers R¹, pivoted in the end of the bell cranks and abutting the rail at the top, the bar J, having a tooth *j*¹, designed to lock the wheel G, by means of the tooth *g*, being brought underneath the tooth *j*¹, and having connected to its upper end a cord *j*², which passes over a pulley *j*², and is provided with a weight *j*⁴, as and for the purpose specified. 4th. The combination with the gate A, provided with a weighted end B, pivoted at *a*, on the standard A¹, and having a wheel E, journalled on the pivot stud, of the belt F, connecting the wheel E, to the wheel G, the cord *r*, connected to the uprights R², of the bell cranks R, and the plungers R¹, pivoted in the end of the bell cranks and abutting the rail at the top, the bar J, having a tooth *j*¹, designed to lock the wheel G, by means of the tooth *g*, being brought underneath the tooth *j*¹, and having connected to its upper end a cord *j*², which passes over a pulley *j*², and is provided with a weight *j*⁴, and means whereby the bar J, is moved from the wheel G, so as to unlock the teeth *g* and *j*¹, as and for the purpose specified. 5th. The combination, with the gate A, provided with a weighted end B, pivoted at *a*, on the standard A¹, and having a wheel E, journalled on the pivot stud, of the belt F, connecting the wheel E, to the wheel G, the cord *r*, connected to the uprights R², of the bell cranks R, and the plungers R¹, pivoted in the end of the bell cranks and abutting the rail at the top, the bar J, having a tooth *j*¹, designed to lock the wheel G, by means of the tooth *g*, being brought underneath the tooth *j*¹, and having connected to its upper end a cord *j*², which passes over a pulley *j*², and is provided with a weight *j*⁴, and the bell-crank L, provided with plungers K, uprights M, connected by a cord *n*, to the weighted lever M¹ the lever O, connected by the cord O¹, to the pivoted bar J, the plungers K, being so arranged that upon the subsidence of the rail as the train is passing over them to tilt their respective bell-cranks and thereby raise the weighted lever M¹, and upon the train having passed to allow of the lever M¹, swinging downwardly and striking the lower end of the lever O, so as to draw upon the bar J, and free the tooth *g*, of the wheel G, from engage-

ment with the tooth *j*¹, of the bar J, as and for the purpose specified. 6th. The combination, with the gate A, bolt F, and wheel G, all arranged as specified, of the bell-cranks R, provided with plungers R¹, and uprights R², the uprights R², being connected by the cord *r*, to the wheel G, and the bell-crank Q, plunger Q¹, upright Q², and plungers R¹, connected by the cord *q*, which passes over the pulley *q*¹, and provided with a weight *q*², all arranged to one side of the crossing and operating as specified and corresponding bell-cranks S, plunger S¹, upright S², cord *s*, pulley *s*¹, and weight *s*², pulley crank T, plunger T¹, plunger T², cord *t*, connected to the upright T² at one end, and to the wheel C at the opposite end, all arranged to co-act as shown and for the purpose specified. 7th. The combination, with the bell-crank U, plunger U¹, and upright U², cord *u*¹, pulley *u*², and weight *u*³, and bell-crank V, plunger V¹, and upright V², connected to the cord *v*, arranged with one set at each side of the crossing as specified, and the other end of each cord *v*, passing round the pulleys *v*², and being connected to the cord *v*¹, which is connected to the arm by which the bell is swung, as and for the purpose specified. 8th. The combination, with the bell-cranks, plungers and uprights all arranged to operate as specified upon the subsidence of the rail, of the stop blocks Z, arranged to abut each plunger when in its normal position, as and for the purpose specified.

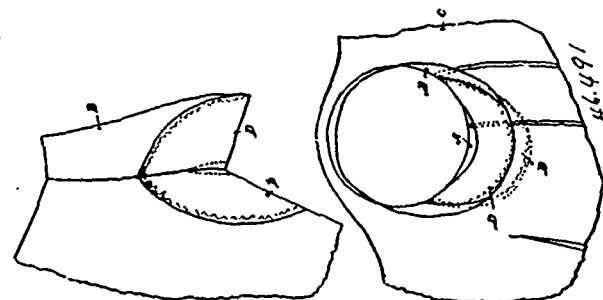
No. 46,490. Sprocket Wheel. (*Roue dentée.*)



Peter D. Murphy and Edward Kobb, both of Lockport, New York, U.S.A., 5th July, 1894; 6 years.

Claim.—1st. In a sprocket wheel having removable plates secured to the periphery of the wheel adapted to fit between the teeth, for the purpose described. 2nd. In a sprocket wheel, the combination with the wheel, of plates adapted to fit upon the periphery thereof between the teeth and the interposed packing, for the purpose described. 3rd. A sprocket wheel having removable plates secured between the teeth in length equal to the distance between said teeth, for the purpose described.

No. 46,491. Body Garment. (*Vêtement.*)



Frederick W. Warner, Rochester, New York, U.S.A., 5th July 1894; 18 years.

Claim.—1st. A body garment having an arm opening, and a pocket formed in the garment directly below said arm opening with its mouth in close proximity to it, whereby one side of a dress shield may be inserted in said pocket and the shield removably held directly beneath the arm of the wearer, substantially as described. 2nd. As an article of manufacture, a body garment having the arm opening, the sleeve secured thereon, and a pocket formed in the body directly beneath the arm hole, and a pocket in the underside of the sleeve close to the arm opening, said pocket adapted to