

No. 31,037. Apparatus for Equalizing the Strain on Winding Gears used in Mining Shafts and Warehouse Lifts. (*Appareil pour égaliser la tension des monte-charge employés dans les puits de mines et les entrepôts.*)

George Lansell, Sandhurst, Victoria, 3rd April, 1889; 5 years.

Claim.—The combination, with such gears, of an auxiliary spider bearing a counterbalance, consisting of a chain attached to a rope, such chain being made in lengths of gradually increasing weight from the rope downwards, and so arranged as that the whole of said rope will be unwound when the loaded cage or lift has risen half way to the top, and so as that said rope will then automatically reverse and commence to be wound up, and preferably with a chamber or receptacle in which such counterbalance will coil and uncoil itself, substantially as herein described and explained.

No. 31,038. Folded Paper for Carpet Lining and other Purposes. (*Papier plié pour le soufflage des tapis et autres fins.*)

Austin Gibb, Chicago, Ill., U.S., 3rd April, 1889; 5 years.

Claim.—1st. A carpet lining composed of a strip of paper board A or other like material, bent or crimped as described to produce elastic folds, and one or more unattached and removable strips B of thinner paper folded with the thick sheet A but readily separable therefrom, substantially as and for the purposes specified. 2nd. In a carpet lining, a strip of paper board A or other like material folded as described, in combination, with one or more unattached sheets of thinner paper B folded therewith but readily detachable therefrom, and tying strips C secured to the back of the main strip A, substantially as and for the purposes specified.

No. 31,039. Sheat Carrier and Band Cutter.

(*Porte-gerbe et coupe-hart.*)

Donald McEwen, Jr., Massagaweya, Ont., 3rd April, 1889; 5 years.

Claim.—A series of fingers D connected to the travelling endless chains C carried by sprocket-wheels connected to revolving shafts properly journaled in the frame B, in combination, with the revolving knife G, arranged substantially as and for the purpose specified.

No. 31,040. Apparatus for Charging the Cisterns of Railway, Signal, Carriage, Ship and other Lamps and for Regulating the Supply of the same. (*Appareil pour remplir les lampes des chemins de fer, signaux, voitures, navires et autres, et en régler l'alimentation.*)

Samuel T. Dutton, Worcester, Eng., 4th April, 1889; 5 years.

Claim.—1st. The construction and arrangements of the parts of the apparatus hereinbefore described and illustrated in the accompanying drawing, for charging with oil (or other liquid) the oil cisterns of railway signal, carriage, ship, and other lamps, and other vessels. 2nd. The arrangements or combination of the parts of the apparatus hereinbefore described and illustrated in the accompanying drawings, for regulating the charge of oil (or other liquid) supplied to the oil cisterns of railway, signal, carriage, ship, and other lamps, and other vessels. 3rd. The construction and combination of the parts of the delivery valves, and pendant spouts of the apparatus hereinbefore described and illustrated in Figs. 1, 4, 7, 9, 12 and 13 of the accompanying drawings.

No. 31,041. Telephone and Analogous Electric Systems. (*Système de téléphone électrique et autres semblables.*)

Anthony B. Ferdinand, Oshkosh, Wis., U.S., 4th April, 1889; 5 years.

Claim.—1st. In a telephone or analogous electric system, the combination, with the main line and instruments or stations thereon, of supplemental generators adapted to be electrically connected to said main line, and generating stronger currents than those which operate the instruments, electro-magnets and armatures attracted thereby under the action of a current from one of said supplemental generators, and mechanism connected to said armatures and adapted for automatically cutting out the instruments or stations on the line other than those which are to communicate with each other and eliminating their resistance, substantially as set forth. 2nd. In a telephone analogous electric system, the combination, with the main line, and instruments or stations thereon, of supplemental generators adapted to be electrically connected to said main line, and generating stronger currents than those which operate the instruments, electro-magnets and armatures attracted thereby under the action of a current from one of said supplemental generators, and mechanism connected to said armatures and adapted for automatically cutting out for a predetermined time, the instruments or stations on the line other than those which are to communicate with each other, and automatically restoring their circuits to their normal condition at the expiration of said period, substantially as set forth. 3rd. In a telephone or analogous electric system, the combination, with the main line and instruments or stations thereon, of a supplemental generator adapted to be electrically connected to said main line, and capable of generating a current of electricity greater than the ordinary currents used to operate the instruments on said line, electro-magnets normally electrically connected to said main line and the instruments thereon, and armatures within the field of attraction of said electro-magnets only when the latter are acted upon by the said strong current, mechanism mechanically connected to said armatures for automatically cutting out said instruments, and bearing a device for making a shorter and more direct temporary circuit on the main line at any

point where an instrument is cut out practically free from resistance at such point, suitable switches and electric circuits and other mechanism mechanically connected to the last-named mechanism for restoring the normal circuits at such point or points at the expiration of a predetermined time, substantially as set forth.

No. 31,042. Sulky. (*Désobligeante.*)

Joseph Barsalou, St. John, Qué., 4th April, 1889; 5 years.

Claim.—1st. In sulky, the spring S placed under or above and in the same direction as the axle B, substantially as described. 2nd. In sulky, the supports O, O and the arms r, r articulated to the cross bar e, all substantially as and for the purpose set forth.

No. 31,043. Catamenial Sack. (*Sac cataménial.*)

Emma A. Wiley, Los Angeles, Cal., U.S., 4th April, 1889; 5 years.

Claim.—As an improved article of manufacture, the catamenial sack having the thin rubber body portion A, adapted to fit snugly round the lower portion of the trunk of the wearer, and provided near its bottom on opposite sides of the centre with thigh openings B, B, the loose depending sponge-containing pocket F located between the thigh-openings and integral with the body portion, and the drawing strings or tapes C at the upper edges of the body portion, substantially as and for the purpose specified.

No. 31,044. Watchman's Time Detector.

(*Contrôleur de garde de nuit.*)

Etna H. Davis and Reuben Westervelt, Elmira, N.Y., U.S., 4th April, 1889; 5 years.

Claim.—1st. The combination, with a series of markers located within a box and operating magnets therefor, of an additional marker and levers for operating the same, and a device connected with the door of the box for co-operating with the said levers. 2nd. The combination, with a series of markers located within a box and operating magnets therefor, of an additional marker, and levers for operating the same, and a device connected with the door of the box for co-operating with the said levers, all in combination with a recording strip having columns corresponding to the markers. 3rd. The combination, with a clock-work and a circuit controlling segment normally operated thereby, of a magnet whose armature is connected with the segment, and a circuit controller in the magnet circuit, as and for the purpose set forth. 4th. The combination, with an electro-magnet for operating a marker, of a circuit controller and a separate electro-magnet in the same circuit, a circuit controlling segment pivoted to the armature of the second magnet, the said segment being normally in frictional contact with a moving portion of a controlling clock, as and for the purpose set forth.

No. 31,045. Machine for Bending Pipe.

(*Machine à courber les tuyaux.*)

Herbert E. Fowler, New Haven, Conn., U.S., 4th April, 1889; 5 years.

Claim.—1st. In a machine for bending and coiling pipe, the combination, with a pair of feed rollers, of a pair of bending rollers formed with moulded ends journaled one above the other, and arranged to project into the space between said feed rollers, and together with one of said rollers to force the pipe to follow the contour of the opposite feed roller for a portion of its periphery, and to form a continuation of the periphery of said first-named roller, substantially as specified. 2nd. In a machine for bending and coiling pipe, the combination, with a pair of feed rollers, of a pair of bending rollers formed with moulded ends journaled one above the other, and arranged to project into the space between said feed rollers, and together with one of said rollers to force the pipe to follow the contour of the opposite feed roller for a portion of its periphery, and to form a continuation of the periphery of said first-named roller, and means for adjusting said rollers toward and from said feed rollers, substantially as described. 3rd. In a machine for bending and coiling pipe, the combination, with a pair of feed rollers, of a pair of bending rollers formed with moulded ends journaled one above the other, and arranged to project into the space between said feed rollers, and together with one of said rollers to force the pipe to follow the contour of the opposite feed roller for a portion of its periphery, and to form a continuation of the periphery of said first-named roller, and a slide which forms bearings for said bending rollers and is provided with a feed screw for adjusting it toward or from said feed rollers, substantially as specified. 4th. In a machine for bending and coiling pipe, the combination, with a pair of feed rollers, of a slide provided with a screw for adjusting it toward and from the space between said feed rollers, a plate or frame pivoted upon said slide, a screw for tilting or laterally adjusting said plate or frame, and a pair of bending rollers which are journaled one above the other at the inner end of said plate frame, and formed with moulded ends and together with one of said feed rollers force the pipe to follow the contour of the opposite feed rollers for a portion of its periphery, substantially as described. 5th. In a machine for bending and coiling pipe, the combination of a pair of grooved feed rollers, a slide provided with a screw for adjusting it toward and from the space between said feed rollers, a plate or frame pivoted upon said slide, a screw for laterally adjusting said plate or frame, and a pair of bending rollers which are journaled upon said plate or frame, and formed with moulded ends which correspond to the grooves in the feed rollers, force the pipe to follow the contour of the opposite feed roller for a portion of its periphery, substantially as specified. 6th. In a machine for bending and coiling pipe, the combination, of the machine frame or table formed with the diagonal slot 24, the feeding rollers 19 and 21 formed with the registering circumferential grooves 20 and 22, the guide rollers 23, the guide 41, the slide 25 in said slot 24, the screw 27 for adjusting said slide, the plate or frame 31 pivoted upon said slide and formed with the uprights 32 which are provided with the horizontal bearings 33, the screw 38 which bears against the outer upright 32, the shafts 34 in said bearings 33, and the bending rollers 35 upon the inner ends of said shafts, and formed with the moulds, grooves or rabbets 36 which correspond in shape to the grooves in said feed rollers, substantially as specified.