

Wheel *g*, having one or more rings *z* with circular unnotched sides to turn in contact with flanges *s*; and carrying the series of radial knives *c*, the sides of rings *z* being converging down to the flanges; 2nd. The rotating wheel *g*, having the circular unnotched rim or ring *z* with the agitator *c* attached to its top, and the radial knives *c* to its base, in combination with the stationary wheel *o* having the rim or ring *f* and hub with notched flanges *s*.

No. 10,850. Improvements on Lamps. (*Perfectionnements aux lampes.*)

Henry E. Shaffer, (Assignee of Charles F. Spencer), Rochester, N. Y., U. S., 21st January, 1880; for 5 years.

Claim.—The standard A provided with the socket *a*, situated at right angles to each other, and the front *c*, provided with the stem *d* adapted to fit in either of said sockets or holes.

No. 10,851. Improvement on Lamps. (*Perfectionnements aux lampes.*)

Henry E. Shaffer, (Assignee of Charles F. Spencer), Rochester, N. Y., U. S., 21st January, 1880; for 5 years.

Claim.—1st. The base A, the fount C and the standard B, the standard being made in two sections hinged or jointed together, one section being a permanent attachment of the base and the other of the fount, and provided with a locking attachment which enables the lamp to be stiffened for use, either as a stand or bracket lamp; 2nd. The combination, with the standard B made in two sections, of the hinge or joint uniting said sections consisting of the bar D provided with slot *b* attached to the upper section, the pin *d* attached to the lower section passing through said slot, and the slot *f* in the lower section; 3rd. The combination, with the standard B made in two sections of the drip cup *k* surrounding the upper section.

No. 10,852. Improvements in Car Brakes. (*Perfectionnements aux freins des wagons.*)

George Smith, Stratford, Ont., 21st January, 1880; for 5 years.

Claim.—1st. A lever pivoted on the bottom of a car and operated by a rope G, in combination with a rope H passing over friction pulleys *b* and connected to the brake levers I and J; 2nd. The plates A B C, pulleys *a*, *b*, bolts *d* forming a lever and pivoted, on the pins *f*, to the plate D and bracket E, in combination with the continuous rope H; 3rd. A lever pivoted on the bottom of a car and connected to the brake levers I and J, in combination with a continuous rope H passing over friction pulleys K; 4th. A lever pivoted on the bottom of a car and connected to the brake rod E; in combination with a continuous rope H.

No. 10,853. Improvements on Telephones. (*Perfectionnements aux téléphones.*)

George L. Anders, Boston, Mass., U. S., 21st January, 1880; for 5 years.

Claim.—1st. In an electric circuit, two signal bells, each provided with an electric magnet and with a polarized armature, controlling the action of its bell hammer, and the armature of one bell responding only to a current in one direction, and the armature of the other bell responding only to a current in the opposite direction, so that either bell may be rung without ringing the other according to the direction of the current; 2nd. In an electric circuit, two signal bells, each provided with an electro-magnet and with a biased polarized armature operating its bell hammer, the bias of one armature being opposite to the bias of the other magnets; 3rd. In an electric circuit, two signal bells provided with electro-magnets, with oppositely biased polarized armatures operating the bell hammers combined with a third signal bell having a polarized armature free to respond to currents of either polarity; 4th. In an electric circuit, the combination of two signal bells, each having an electro-magnet, a bias polarized armature operating the bell hammer, a magneto induction device to signal the central office, and means for removing the bias spring from the armature of one of the signal bells; 5th. In an electric circuit, one or more signal bells having biased polarized armature operating the bell hammer, with another signal bell having a free polarized armature and a magneto-induction device to signal the central office.

No. 10,854. Improvements on Clothes Wringers. (*Perfectionnements aux essoreuses a linge.*)

Joseph W. Galef, North Easton, Mass., U. S., and Austin D. Cable, Montreal, Que., 21st January, 1880; for 5 years.

Claim.—1st. The bolt H with head K passing through a round hollow D, or of any other suitable shape; 2nd. A metal spiral spring I, or of any other shape, tightened or loosened by a thumb screw G; 3rd. A pinion F passing through the head K of the bolt H, and also through the lever itself; 4th. A support L, metallic or of any other suitable material; 5th. A lever M having the lion shape, or of any other suitable shape; 6th. The whole combined.

No. 10,855. Improvements in Commodes. (*Perfectionnements aux latrines à terre sèche.*)

John W. Sprint, Millwood, Va., U. S., 21st January, 1880; for 5 years.

Claim.—1st. The combination of a commode box, a receiving receptacle therein provided with a valve to close its opening and be removed therewith and a lever detachably connected to the valve for operating the same. 2nd. The combination of a box A, the lever J, the slide H and the valve F detachably secured thereto; 3rd. The combination of the box A, the lever J, the slide H and the ledge O.

No. 10,856. Improvements in Furnace Regulators. (*Perfectionnements aux régulateurs des calorifères.*)

Charles H. White, Malden, and Benjamin Woodward, Watertown, Mass., U. S., 21st January, 1880; for 5 years.

Claim.—1st. The vertical air flue or chimney in combination with the more expandable rod or rods *b*; 2nd. The combination of the differential

expansion members arranged vertically in the air-heating space, with their lower ends in the cold air or base of the column and extending upward through the heated air; 3rd. A differential metallic expansion furnace regulating device, the partly cylindrical construction of the regulating valve pivoted at or near the semi-circumference of the smoke pipe; 4th. The graduated arm J in immediate connection with the regulating air valve of a furnace regulator; 5th. The regulating air valve of a furnace regulator having its pivots or journals outside of the smoke flue; 6th. The looped rod *b*, *c*, in combination with the less expandable differential member and compound levers of a furnace regulator; 7th. The combination of the chimney *a*, rod or rods *b*, *c*, lever *d*, lever *e*, rod *f*, or equivalent, lever arm J and valve *m*; 8th. The combination of the chimney *a*, rod or rods *b* *c* operating valve *m*, with the space *n* having branch pipe *n*; 9th. The branch cold air jacket *z*, in combination with the smoke flue *g*, regulating pipe *n*.

No. 10,857. Improvements on Audiphones. (*Perfectionnements aux audiphones.*)

Richard S. Rhodes, Chicago, Ill., U. S., 22nd January, 1880; for 15 years.

Claim.—1st. As an improvement in the art of enabling persons of defective hearing to distinguish sounds through the upper teeth, the application of a sonorous plate strained to be responsive to sound waves; 2nd. The plate *a* in combination with one or more straining cords; 3rd. A vibrating sonorous plate capable of being strained to be responsive to sound waves, and adapted to be held by the hand and to communicate sound by contact with the teeth; 4th. The combination of two or more sonorous plates adapted to be strained for the purpose of transmitting sound waves through the teeth; 5th. Two or more sonorous plates secured, at one end only, in a fixed position, and prevented from coming in contact with each other at their outer ends, in combination with one or more suitable straining cords.

No. 10,858. Improvements on Railway Switches. (*Perfectionnements aux aiguilles des chemins de fer.*)

Conzao S. Bastright, Lebanon, N. H., U. S., 22nd January, 1880; for 5 years.

Claim.—1st. The combination of the three armed lever F, the two connecting rods I, the two three armed levers J, the bent bars K, the notched cross bar E, the catch bar H and the switch bar L with the main and switch rails B D of a track; 2nd. The combination of the sliding bar M, spring N, the two three armed levers P R and the two connecting rods O Q with the bent bar K.

No. 10,859. Device for Fastening Carpets. (*Appareil pour assujétir les tapis.*)

William Bray, Petitcodiac, N. B., 22d January, 1880; for 5 years.

Claim.—The combination, with the rods *a* and eye screws *b*, of the spring catches *c*.

No. 10,860. Improvements on Horse Collars. (*Perfectionnements aux colliers de cheval.*)

Archibald McCorvie, Lucknow, Ont., 22nd January, 1880, for 5 years.

Claim.—1st. Sections A A, attachably connected, composed of a solid frame B of wood or other suitable material, a stuffed lining C secured thereto on the inner face and a metallic plate D secured to the outer face of the frame B, for attachment of the draft tugs; 2nd. The metallic plates D, to form the outer face of the collar, provided with draft clevis E and a stuffed lining C.

No. 10,861. Improvements on Pleasure Swings. (*Perfectionnements aux balançoires.*)

William F. Phillips, Watford, Ont., 22nd January, 1880; for 5 years.

Claim.—The upright A, cross bars F and cap B, in combination with the pendulums C and basket D, the whole combined.

No. 10,862. Improvements on Reins. (*Perfectionnements aux rênes.*)

Hazael B. Powell, Napoleon, Ohio, U. S., 22nd January, 1880; for 5 years.

Claim.—A frame A, tongue B and concave plate C.

No. 10,863. Machine for Grinding Mower Knives. (*Machine à grindre les couteaux des faucheuses.*)

John W. Elliott, Toronto, Ont., 22nd January, 1880, for 5 years.

Claim.—1st. The arms E hinged to the frame A and supporting the head plate F, swivel frame G and knife clamp I operated in connection with an emery wheel; 2nd. The swivel frame G pivoted upon the head plate F and supporting the knife clamp I; 3rd. The knife clamp I sliding on the horizontal bar H and supporting the knife K; 4th. The washer I hollowed out to receive the nut *h* and provided with wings *z* in combination with the nut *h*.

No. 10,864. Salve for the Curing of Sores. (*Onguent pour guérir les plaies.*)

Julye Myers, Boston, Mass., U. S., 22nd January, 1880; for 5 years.

Claim.—A compound of iodine, turpentine, camphor, glycerine, olive oil, soap, beeswax, shoemaker's wax and lard.

No. 10,865. Process of Purifying Gas. (*Procédé pour l'épuration du gaz.*)

Orazio Lugo, Flushing, and William T. Lees, Brooklyn, N. Y., U. S., 22nd January, 1880; for 5 years.

Claim.—1st. The process of converting the sulphur contained in crude gas into soluble sulphur compounds, for removal, which consists in heating