

pipe A provided with ball B, the pipe D provided with hemispherical shell C and the divided encasing shell F G, the ball B being bevelled in the rear portion, whereby an oil chamber is provided,

No. 16,223. Improvements on Car Brakes.
(*Perfectionnements aux freins des chars.*)

Charles Higham, Watertown, N. Y., U. S., 31st January, 1883; for 5 years.

Claim.—1st. The brake shoes and their operating levers and a link pivoted at one end to one of the said levers, combined with a movable bearing block for the other lever mounted in the other end of the said link, and means to adjust its position in the said block. 2nd. The lever and link forked to embrace it and slotted at its end, combined with the bearing block guided in the said slot, and its adjusting set screw and threaded socket therefor held in the end of the said slots.

No. 16,224. Improvements on Treadles for Sewing and other Machines.
(*Perfectionnements aux marches des machines à coudre et autres.*)

George B. Ward, New York, N. Y., U. S., 31st January, 1883; for 5 years.

Claim.—The rotary shaft G having cranks *f g*, and swivelled foot supports H H, combined with the belt or chain F, shaft E having fly wheel belt or chain D and shaft C to be driven, and with frame A.

No. 16,225. Improvement on Calendars.
(*Perfectionnement des calendriers.*)

Elroy N. Heath, Boston, Mass., U. S., 31st January, 1883; for 5 years.

Claim.—The main card A having the slits *a a* made therein, and the names of the days of the week above the space between the slits and those of the months, between the lower ends of the slits, in combination with the sliding card B having the numbers of the days of the months and provided with a notch C at its bottom edge, whereby the latter card is held to the former simply by resting in the slits and the proper month is exposed at the notch.

No. 16,226. Improvements on Railroad Velocipedes.
(*Perfectionnements aux vélocipèdes de voie de fer.*)

Jeremiah Murphy, Brooklyn, N. Y., U. S., 31st January, 1883; for 5 years.

Claim.—1st. The combination of a large flanged driving wheel provided with cranks for the feet, a saddle arranged over said driving wheel, a smaller flanged following wheel behind the driving wheel, a frame connecting said wheels, a steadying wheel arranged opposite the space between the driving wheel and the following wheel, and longitudinally adjusted braces forming a part of said frame and extending at reverse angles from near the ends of the frame proper to said steadying wheel. 2nd. The combination, with a large driving wheel, a following wheel arranged behind the same, and a steadying wheel arranged opposite the space between the driving wheel and following wheel, of means whereby the velocipede may be canted more or less, to properly balance it. 3rd. The combination, with a large driving wheel, a following wheel arranged behind the same, and a steadying wheel arranged opposite the space between the two said wheels, of an extensible strap extending from the bearings of, and passing over the steadying wheel and affording provision for canting the velocipede to distribute the weight. 4th. The combination of a large driving wheel, a smaller following wheel, and a steadying wheel arranged opposite the space between the said wheels and the frame D D'. 5th. The wheel consisting of the shaft *a*, provided with flanges *b*, the disk-shape collar *c*, the tread *d*, nuts *e* and spokes *a*.

No. 16,227. Improvements on Petroleum Burners.
(*Perfectionnements aux foyers à pétrole.*)

Richard A. Bury and Robert M. Bidelman, Adrian, Mich., U. S., 31st January, 1883; for 5 years.

Claim.—1st. The process of burning vaporizing oils in a furnace of ordinary construction, by the use of an asbestos vaporizer. 2nd. As a means of vaporizing crude petroleum or other vaporizing oils, an asbestos vaporizer in a fire-box of ordinary construction.

No. 16,228. Improvements on Wheel Runners.
(*Perfectionnements aux patins des voitures.*)

Harold Holland, Lynn, Mass., U. S., 31st January, 1883; for 5 years.

Claim.—The body C having the goose necks *d d*, provided with the U-shaped clamps J J for attaching the same to the wheel; the shoe G provided with the nuts and bolts *f*, for attaching the same to the body; the flanges *e* for preventing the wheel from slipping laterally from the runner; and the two vertical braces *m m* arranged equidistant from the flanges *e* to strengthen and prevent the runner from bending.

No. 16,229. Improvement on Electric Devices for operating Throttle Valves.
(*Perfectionnement aux appareils électriques pour faire fonctionner les soupapes d'admission.*)

Josiah Nesbitt, Toronto, Ont., 31st January, 1883; for 5 years.

Claim.—1st. In an engine or machine, the movement of which is

arrested by the cutting off of the steam or other primary motor, the combination of an electro-magnet arranged to sustain the mechanism by which the throttle valve, or other cut-off is operated and provided with a key, or keys by which the current is broken in order to release the operating mechanism sustained by the electro-magnet. 2nd. In an engine or machine, the movement of which is arrested by the cutting off of the steam or other primary motor, a rope or chain connected at one end to the throttle valve or other cut-off, and after passing around a spool held from revolving by a suitable catch, has a weight attached to its other end, in combination with an electro-magnet arranged to sustain a weighted lever or its equivalent, which lever, when released from the magnet, is arranged to fall upon and release the catch holding the spool, by which action the effect of the weight is directed to operate the cut off mechanism. 3rd. A rope H connected at one end to the throttle valve or its equivalent and having a weight attached to its other end, a pivoted spool G, around which the rope is carried, and a pawl engaging with a ratchet G on the spool in order to sustain the effect of the weight, in combination with a pivoted lever weighted so as to fall, when not supported, and provided with a tail-piece designed to come in contact with, and disengage the pawl when the lever falls, a lever, one end of which fits over a catch on the lever, and the other extends below the pivoted weighted lever having a tail piece and supported by the electro magnet.

No. 16,230. Improvements on Knitting Machines.
(*Perfectionnements aux machines à tricoter.*)

Joseph Adams, Philadelphia, Penn., U. S., 31st January, 1883; for 5 years.

Claim.—1st. The following instrumentalities in combination: first, a needle cylinder provided with a series of vertically placed bearded needles and mechanism for revolving said cylinder, second, a tuck presser situated in such relation to said cylinder as to be always in mesh with the beards on the needles, third, a plain presser placed concentrically with the tuck presser, but adapted to be moved towards and from the needles in a direction radial to their cylinder, fourth, a lever connected with the plain presser, and fifth, a cam way upon the needle cylinder adapted to encounter the lever and occasion the throw, both of said lever and with it, of the plain presser. 2nd. In combination with a presser bar provided with a fixed stem, a tuck presser revolving fixedly upon said fixed stem a collar having an elliptic slot and placed upon said stem, a plain presser revolving around the collar, a lever engaged as to its upper extremity with the collar, and a line as to its lowest extremity, with a cam-way, a cam-way upon a needle cylinder, and a needle cylinder. 3rd. In combination with the needle cylinder, a cam-way and means for locking the cam-way to said needle cylinder.

No. 16,231. Improvements on Two-Wheeled Vehicles.
(*Perfectionnements aux voitures à deux roues.*)

Edward Storm, Poughkeepsie, N. Y., U. S., 31st January, 1883; for 5 years.

Claim.—1st. The combination of shafts, or a pole secured to the axle side bars mounted on the axle, and a spring, or springs connecting the side bars to the body. 2nd. The combination of shafts or a pole secured to the axle side bars, rigid connections between the axle and side bars, and springs connecting the side bars to the body. 3rd. The combination, in a two-wheeled vehicle, of shafts, or a pole, secured to the axle side bars mounted on the axle and torsion springs connecting the side bars to the body. 4th. The combination of shafts, or a pole secured to the axle side bars mounted on the axle and torsion springs extending at angles to the axle and connecting the side bars to the body. 5th. The combination of shafts, or a pole secured to the axle side bars mounted on the axle, a body unconnected with the shafts and springs connecting the side bars and body. 6th. The combination, in a two-wheeled vehicle, of shafts, or a pole secured to the axle, rigid brackets or supports secured to the axle independently of the shafts or pole, and springs between the brackets or supports and the body.

No. 16,232. Improvements on Safety Valves.
(*Perfectionnements aux soupapes de sûreté.*)

George C. Collier, Bay, Mich., U. S., 31st January, 1883; for 5 years.

Claim.—1st. A safety valve wherein the pressure acting upon the top of a wing valve depresses the same and affords a direct passage of steam from the boiler to the exhaust passage. 2nd. A safety valve provided with steam spaces D H, steam passages F I, valves G E L, spring M, lever B and weight C.

No. 16,233. Improvements on Detachable Handles for Utensils.
(*Perfectionnements aux queues mobiles des ustensiles.*)

Fred A. Neider and George Grossmann, Augusta, Ky., U. S., 31st January, 1883; for 5 years.

Claim.—1st. A detachable handle, constructed in two parts pivoted together and provided with jaws arranged to move in closing in planes parallel to their faces. 2nd. The combination, to form a detachable handle for utensils, of the two parts pivoted together and provided with jaws to grasp the utensils arranged to move in closing in planes parallel to their faces, and one part arranged to close within a pocket in the other, when the two are brought together. 3rd. The combination, to form a detachable handle for utensils, of the two parts A and B pivoted together and provided with jaws *a b* which are bent at an angle to said parts and arranged to take over the margin of the utensil C, and one part provided with an inclined or bevelled projection *i* arranged to take against a face *f* on the other part, so as to give the parts a slight longitudinal movement on each other when brought together.