

V having a portion *q* on a level with or slightly above the cloth plate, and a pivoted arm *s* carrying the feed point or points, with mechanism whereby both bar and arm are intermittently reciprocated horizontally, and whereby the arm is made to intermittently vibrate vertically. 12th. The combination of the bar V, the arm *s* pivoted to the same, the vibrating feed lever T adapted to slots in the said bar and arm and having an adjustable pivot. 13th. The combination of the counter shaft K and its two cams *p p*, the feed lever T and its adjustable fulcrum, the arm U loosely connected to the bed plate and serving as a medium through which the movements of the feed arm are determined. 14th. The combination of the rotating hook *b* with a fixed shuttle having a nose grooved for the reception of the hook. 15th. The combination of a spool case, a spool and a spring acting on one end of the spool and tending to force the opposite end of the same against a face formed in the case, with thread guides which direct the spool thread between the end of the spool and said face. 16th. The combination of the shaft J, the clutch disk D¹ secured thereto, the loose pulley E¹ having a belt wheel *f* and peripheral driving flange *d¹* means for clutching the pulley to the disk, and a hand wheel, whereby the shaft J may be turned when the disk D¹ is released from the pulley E¹. 17th. The combination of the shaft J, the driving pulley E¹ loose thereon, the disk D¹ secured to the shaft and having a flange *a¹*, the lever M¹ hung to the pulley E¹ and having a short arm *s¹* with eccentric face and means for operating said lever. 18th. The combination of the shaft J, the driving pulley E¹ loose thereon, and having a hub *e¹* with annular recess *g¹*, the disk D¹ secured to the shaft and having a flange *a¹*, the lever *m* hung to the wheel E¹ and having a short arm *s¹* with eccentric face, and long arm *s²* with bent end, the spring *x¹*, the sleeve F¹ adapted to the recess *g¹* and having a conical end, and means for reciprocating said sleeve. 19th. The combination of the clutch actuating sleeve F¹ having an arm J¹ and a V-shaped recess *m³*, the frame B¹ having a V-shaped plate *n¹* and a spring *h¹* for maintaining the sleeve in contact with said plate. 20th. The combination of the clutch actuating sleeve F¹ having an arm J¹, a shallow recess *m²* and a deep recess *m³*, the V-shaped plate *n¹* and the spring *h¹*.

No. 13,351. Improvements in Lamps. (*Perfectionnements dans les lampes.*)

The Compagnie Générale Belge de Lumière Electrique, (Assignee of Antoine Bureau), Brussels, Belgium, 1st September 1881; for 5 years.

Claim.—The improved sun lamp, composed of a grooved refractory block. 2nd. In an electric lamp, the arrangement of the carbons in the block. 3rd. In an electric or other lamp, the block formed totally or partially of refractory material, and of one or several pieces, in combination with the box or shell. 4th. The improved arrangement of parts forming the lamp.

No. 13,352. Improvements on Hoof Expanders. (*Perfectionnements aux appareils à ouvrir les sabots des chevaux.*)

David Roberge, New York, N. Y., U. S., 1st September 1881; for 5 years.

Claim.—A hoof expander composed of a single length of spring wire or other suitable material having formed thereon one or more bows or eyes *a*, together with two legs *b b* provided with prongs or pins *d d*.

No. 13,353. Improvements on Journal Bearings for Car Axles. (*Perfectionnements aux coussinets des tourillons pour les essieux des chars.*)

David A. Hopkins, Park Ridge, N. J., U. S., 1st September 1881; for 5 years.

Claim.—1st. A journal bearing constructed on its journal side with tapering ridges and contiguous cavities, said ridges being made so weak as to be readily crushed down into, and turned or spread out in said grooves. 2nd. A journal bearing having contiguous grooves or cavities and tapering ridges, in combination with a stiff lubricating material placed in said grooves, all arranged so that the lubricating material will be expelled from said cavities by the metal of said ridges being crushed into, and spread out in them. 3rd. A pendant lip *d* and the recess *c* and the aperture *g* leading from the front upper part of said upper lip at or near where it is joined to the bearing into said recess. 4th. A journal bearing constructed on its wearing surface with alternate grooves and weak ridges, and provided with cross ridges *a*. 5th. A series of bands of soft metal projecting beyond the hard metal surface of the journal side of the bearing. 6th. A bearing having its journal side provided with ridges of such construction, composition and nature that by the operation of load pressure applied to the bearing, and the revolution of the journal they will be crushed down and spread.

No. 13,354. Improvements in Electric Lamps. (*Perfectionnements aux lampes électriques.*)

Leonidas G. Woolley, Union, Ind., U. S., 2nd September 1881; for 5 years.

Claim.—1st. The combination of a hollow carbon holder and a regulating mechanism, the moving parts of the mechanism being placed in the carbon holder. 2nd. The combination of a helix or axial magnet, a core, a hollow carbon holder, and a regulating mechanism, the moving parts of which are placed in the holder and operated by the core and helix. 3rd. The combination of the hollow carbon holder, a dash or plunger and a regulating mechanism the moving parts of which are placed therein the distance that the regulating mechanism shall move being controlled by the dash. 4th. The regulating mechanism or device composed of a frame and a pivoted lever, in combination with a core which raises the mechanism and carbon holder upward, the carbon holder and helix. 5th. The combination of the tube C having the axial magnet applied to its upper end, a hollow carbon holder which forms a dash pot, the core N having the rod O fastened to it, and a clamping

device which is placed in the dash pot and which is operated by the core so that, when the core is raised upward, the clamp will engage with the inner side of the dash pot and raise the carbon holder upward. 6th. The combination of a stem having a hole through its end and provided with a set screw, with a carbon or electrode holder made in two parts which are united by a solder, or other substance, which fuses at a low temperature, and a chain for holding the carbon-holder when detached from the stem. 7th. A carbon-holder made in two parts which are connected together by solder, or other substance which will fuse at a low temperature, so that, in case the holder should become heated, the two parts will separate. 8th. The combination of a carbon or electrode holder, which is made in two parts and united together by a substance which fuses at a low temperature, with a chain which is fastened to both parts. 9th. The combination of the stem A¹ having a non-conducting substance secured to its lower end, with a carbon or electrode holder made in two parts, which are secured together by a substance which is fusible at a low temperature, and a chain which is fastened to both parts for the purpose of preventing one of them from falling. 10th. A carbon-holder or guide composed wholly or partly of a metal which fuses at a low temperature. 11th. A carbon-holder made in two or more parts which are united together by a solder, or made wholly of a metal which fuses at a low temperature, in combination with a chain or other suitable device, for preventing the carbon or its holder from falling.

No. 13,355. Improvements on Sewing Machines. (*Perfectionnements aux machines à coudre.*)

Lansing Onderdonk, Adams Station, Campbell C. Brown and Henry P. Wells, New York, N. Y., U. S., 2nd September, 1881; for 10 years.

Claim.—1st. In a gathering and plaiting attachment, a bed plate adapted to be secured to the cloth plate of a sewing machine, said bed plate being provided with an extension forming a recess in which a carrying slide and cloth carrying slides may be reciprocated, and a standard serving as a support for actuating levers and double pawl. 2nd. In combination with the actuating levers, one of which is adapted to be attached to the needle bar of a sewing machine, and to engage with the other, of the double pawl having reversely inclined bearing surfaces and the spring K adapted to bear against either of said surfaces of said pawl, for the purpose of holding the pawl in position to operate in either direction, a rack bar provided with a series of teeth, the intermediate ones of which are rectangular, and the teeth of the extremities triangular and sloping toward each other. 3rd. A rack bar having a series of teeth, the intermediate one of which are rectangular in form, and the teeth at one or both end triangular in form, whereby the bar is adapted to be operated by a suitable pawl in either direction for a portion of its length, and in one direction only for the other portion of its length. 4th. The combination of three slides, wherein one slide is moved continuously backward and forward by any suitable mechanism, and transmits its motion by any device suitable to the purpose alternately, first to one and then to the other, or simultaneously to both, or continuously to either of the slides acting directly on the cloth to be operated on. 5th. The combination, with the bed plate A and its extension A¹, of the rack bar and cloth carrying slides, the friction spring adapted to bear on said rack bar, and the loose friction guides or pads, one of which is located between the rack bar and upper slide, and the other between the upper and lower slides, whereby the pressure of said spring may be transmitted through said rack bar, guides and slides to the bottom of the recess of extension A¹. 6th. The combination of the rack bar provided with a series of teeth rectangular in the middle of said bar, and inclined in opposite direction at opposite ends, the double pawl mechanism for operating said pawl and devices connected to, and moving with said rack bar for tripping said pawl, whereby the said pawl will slip and be prevented from feeding the rack bar beyond a certain point in one direction, and upon being reversed move the same in an opposite direction. 7th. In combination with the rack bar provided with a series of teeth, the intermediate one of which are rectangular in form and the teeth of the extremities triangular or sloping toward each other, and mechanism for imparting motion to the same, the pivoted trip L adapted to trip the pawl to reverse the motion of the rack bar. 8th. In combination with the rack bar, the lever carrying the double pawl, and the fulcrum pin of said pawl, the pivotal trips L the longer arm of which is provided with a hook adapted to engage the fulcrum pin of the double pawl, whereby the attachment may be made to rattle or gather as desired. 9th. The combination, with the rack bar and mechanism for reciprocating said rack bar, of the cloth carrying slides provided with engaging hooks, the shifting device or tumbler N pivoted to the rack bar and provided with a pin N², the switch lever V and its spring V¹, and the auxiliary springs T U whereby the tumbler is shifted, so that its pin N² may be alternately engaged by the hooks of the respective slides. 10th. In combination with the cloth carrying slide and the rack bar having the shifting device or tumbler provided with pin N², a yielding hook secured to the end of said slide, whereby the said pin N² may be restored to its proper position. 11th. The tooth lever P in combination with the shifting device or tumbler N having the pin N¹ and the rack bar, whereby the pin on the tumbler adapted to be locked by said latch and the tumbler prevented from oscillating. 12th. A carrying slide, in combination with a shifting device or tumbler hinged thereto, whereby through oscillations of said shifting device, the carrying slide is locked alternately with, and transmits its motion alternately to the slides acting directly on the cloth to be operated upon. 13th. The combination of an oscillating lever, a spring and a friction clutch provided with clamping pins at its lower extremity, and having its upper edge terminating in a double incline with a slide or bar, wherein said slide or bar is to receive from said clutch a reciprocating motion, for the purpose of operating said attachment. 14th. The combination of an oscillating lever, a spring, a friction clutch provided with clamping pins near its lower extremity and having its upper edge terminating in a double incline, a slide or bar, and a trip or trips attached to the said bar, for the purpose of tripping and reversing said friction clutch. 15th. A rack bar having shifting device or tumbler provided with pins n², hinged to each side thereof, combined with cloth carrying slides having the hooks O¹ O², and the pawls or latches T¹.