No. 11,958. Improvements on Sewing Machines. (Perfectionnements aux machines à coudre.)

Charles L. Kellogg, Gasport, N.Y., U.S., 10th November, 1880; for 5 years. Claim.-1st. The combination, with the rack bar C and crank arm E, of the tilting pawl F, having bail c, sleeve G, and spring G1. 2nd. The combination of arm E, spring G1, sleeve G, tilting pawl F, and rack bar C, provided with stops J K, whereby an automatic reciprocating movement is imparted to the gathering arm I. 3rd. The combination of plate A, having arm L provided with bars M, and rack bar C provided with arm H, for folding platis and ruffles. 4th. The sleeve G provided with arm H, for folding platis and ruffles. 4th. The sleeve G provided with arm I. for folding platis and ruffles. 4th. The sleeve G provided with arm H, for folding platis arm L baving adjustable stop K. 6tb. The tripping stop J, adjustably attached to the rack bar C. 7th. The arm H, pivoted to rack bar C and having a roking motion. 8th. The arm L, having bars M and provided with needle hole g. 9th. The arm N for the purpose set forth. Claim .- 1st. The combination, with the rack bar C and crank arm E, of the

No. 11,959. Saw Mill Head Block. (Poupée de scierie.)

Levi W. Pond, Eau Claire, Wis., U. S., 10th November, 1880; (Extension of Patent No. 5,368).

No. 11,960. Saw Mill Head Block. (Poupée de scierie.)

Levi W. Pond, Eau Claire, Wis., U. S., 11th November, 1880; (Extension of Patent No. 5.368).

No. 11,961 **Composition for removing Boiler** Scale. (Composé pour enlever les incrustations des chaudières.

Avila S. Vinet, Narcisse Bélanger, and Jean B. Vinet (Assignees of Auguste Chavasse and Arsène Rambouillet,) Montreal, Que., 11th November, 1880 ; (Extension of Patent No. 5,382).

No. 11,962. Improvements on Glove Fasteners. (Perfectionnements aux agrafes des gants.)

Robert R. Rae, (Co-inventor with James Wilds,) Actor, Ont., 11th November, 1880; for 5 years.

Claim.-A pair of locking studs, rivetted, or otherwise fastened, to the glove, and so formed that they lock when twisted together.

No. 11,963. Improvements Blacking on **Brushes.** (Perfectionnements aux brosses à souliers.)

Edmund L. Wood, Henry S. Schmick, Charles U. Connelie and Daniel E. Boone, Fastland, Texas, U. S., 11th November 1880; for 5 years.

Claim.-lst In combination with a blacking brush, a blacking box lder. 2nd. In combination with the box holding cup C having springs E, the ctarm.—ist in combination with a blacking brush, a blacking box holder. 2nd. In combination with the box holding cup C having springs E, the set screw F. 3rd. The combination of the bracket G and post H, the disc K carrying the rotary circular brush I. 4th. In combination with the box holding cup E, the bracket G, binged brush carrier K, and posts H N, having springs M O. 5th. In combination with a blacking brush A, a rotary cir-cular brush I.

No. 11,964. Improvements on Dynamo-Elec-tric Machines. (Perfectionnements aux

machines dynamo-électriques.)

Charles A. Hussey and Amzi S. Dodd, New York, U. S., 11th November 1880; for 5 years.

Claim-1st. A magnet for dynamo-electric machine, circular or semi-cir-cular, cylindrical or semi-cylindrical form, having portions extended or ex-posed inwardly, outwardly or transversely at the sides, the magnet being wound with wire between the said portions. 2nd. A magnet for a dynamo-electric machine, circular or semi-circular, cylindrical or semi-cylindrical in form, having projections extending inwardly, outwardly, or transversely from the sides, and terminating in arc-shaped extensions concentric with the magnet being mond with wire between the projections only from the sides, and terminating in arc-shaped extensions concentric with the magnet, the magnet being wound with wire between the projections only and preferably, to such an extent that the inner surface of the wire will form a continuation of the arc-shaped extensions. 3rd. An armature for a dyna-mo-electric machine comprising radial projections and intervening spaces, having an opening through the centre, and openings through the radial pro-jections. 4th. The combination of a magnet of circular, semi-circular, cylin-drical or semi-cylindrical form, wound and provided with projections ex-tending inwardly, outwardly, or transversely from the sides, and terminating in arc-shaped extensions, and an armature provided with radial trojections and intervening spaces, and having an opening through the centre, and and intervening spaces, and having an opening through the centre, and openings through the radial projections.

No. 11.965. Improvements on Broad-cast Sowers. (Perfectionnements aux semoirs à la volée.)

William Smith, Montreal, Que., 11th November, 1880; for 5 years.

Claim-1st. The combination of a horizontal revolving disc a_i , having projections with chutes $R^I S^i$. 2nd. The combination of the hopper H_i , chute G_i , inclines $R^I S^i$, and disk a^i having projections.

No. 11,966. Improvements on Electric Signalling Instruments. (Perfectionne. ments aux appareils à signaux électriques.)

Thomas T. Eckert, James W. Clendenin, David H. Bates, New York, and Robert Garrett, Baltimore, Md., (Assignees of William Hadden, Brook-lyn, N. Y.,) U. S., 11th November, 1880; for 5 years.

Claim.-14. The non-conducting block A having contact points C D D₁, connected with the circuit wire E, the pivot G, connected with the circuit, wire F, the crank arm H having spring J, the stop K, and the recess L. 2nd. The stop K, attached to the block A having ring groove B, and contact points

C D DI to receive the crank arm H of the circuit closer and stop its move-C D D to receive the crank arm H of the circuit closer and stop its move-ment, whereby the circuit closer is kept from again coming in contact with the contact points during the same movement, and thus confusing the signal. 3rd. The recess L, formed in the bottom of the ring groove B, having contact points to receive the ends of the spring J of the circuit closer, where-by the spring of the circuit closer is taken out of tension, and the circuit closer ser is kept from being turned backward. 4th. The non-conducting block A, constructed with a ring groove having contact points in its bottom, whereby the context spring. I of the circuit closer, is cuided and introtects the contact spring J of the circuit closer is guided and protected.

No. 11,967. Improvements on Rotary Engines. (Perfectionnements aux machines rotatoires.)

George Murray, jr., Cambridgeport, Mass., U S., 11th November, 1880; for 5 years.

Claim. -1st. A rotary engine consisting essentially of a universal joint B, with solid sections E F, snugly fitted and revolving within the globular shell A. 2nd. A globular shell A provided with ports bi, covered channels ci, flanges d_i and pipes f_i , the universal joint B whose sections are solid, standards C, bed plate D, shaft G, pillow block H and pulley I.

No. 11,968. Improvements on Electric Lamps.

(Perfectionnements aux lampes électriques.)

Thomas A. Edison, Menlo Park, N. J., U. S., 11th November, 1880; for 15 vears.

years. Claim.—1st. An incandescing conductor formed of one or more carbonized natural fibres. 2nd. A carbon clamp for uniting the incandescing and the metallic conductors formed of a carbonized material. 3nd. The method of uniting the incandescing and the metallic conductors which consists in insert-ing both in clamps made of carbonizable material, and then carbonizing the whole together. 4th. The slip for carbonization having enlarged ends formed in one piece and homogeneous therewith upon one edge, or one side and one edge, the remaining edge and side being straight. 5th. The method of forming a slip or filament for carbonization, consisting in securing a blank in clamps or holders, having the configuration desired for the carbon, and shaving or cutting away the superfluous material. 6th. A slip or filament for forming, by carbonization, the incandescing conductor of an electric light, made of bast or fibre, like cane and bamboo. 7th. A slip or filament for form-ing, by carbonization, the incandescing conductor of an electric light, made of a material composed of fibres laying parallel through the length of the of a material composed of fibres laying parallel through the length of the slip or filament. 8th. A slip or filament, for carbonization, provided with slots or holes in its enlarged ends, for holding it in the carbonizer and for passage of the clamping screws when placed in a lamp. 9th. The combinapassage of the clamping screws when placed in a lamp. 9th. The combina-tion of the shaving knife, the block c and means for moving it, and the ad-justable limiting screw. 10th. The clamps, formed of two portions, one be-ing provided with offset or shoulders forming the bottom of slots acting as straight-edges or gauges to the slip under treatment. 11th. The clamps provided with slotted projections at the ends, for forming the broadened or thickned ends of the slip, and the slot therein. 12th. The method of form-ing carbons for electric lamps which consist in forming the wood into the carbon decided for the action and then carbon in the set of the scale or a scale of the slot the scale of ing carbons for electric lamps which consist in forming the wood into the shape desired for the carbon, and then carbonizing the same. 13th. The method of forming carbons for electric lamps, which consists in cutting or stamping from a veneer, a piece of wood with thickened or broadened ends, and of the shape desired, and then carbonizing the same. 14th. The horse shoe with thickened or broadened ends for attachment to the clamps formed or cut from one piece of wood. 15th. The method of forming carbons for electric lamps which consists in shaping a block of wood, then cutting, splitting, or shaving into straight pieces adapted for single carbons, then bending such pieces into the desired form, and carbonizing in such form. 16th. The block, for the manufacture of carbons for electric lamps. consisting of the central web, and thickened or broadened ends. 17th. The method of forming carbons for the incandencing conductors of electric light, consisting forming carbons for the incanded of orodated ends. I the include of forming carbons for the incandescing conductors of electric lights, consisting in first cutting or turning a block of wood into the shape of an oval having a broadened portion, then carbonising, and then removing a portion of the broadened part. 18th. A carbon horse shoe composed of a filamentary body with broadened ends turned from a piece of wood and then carbonized. 19th. The method of manufacturing carbons for incandescent electric lamps, uni-form and regular in shape and carbonization, consisting in carbonizing fila-ments while one or both ends are secured in a certain definite position ments while one or both ends are secured in a certain definite position relatively to the amount of contraction, so that, when carbonized and con-tracted, the ends shall be in proper position to each other. 20th. The method of manufacturing carbons for incandescent electric lamps, consisting in main-taining the slips or filaments under constant strain, and with one or both ends fixed, while in process of carbonization. 21st. A method of manufac-turing carbons for incandescent electric lamps consisting in carbonizing the turing carbons for incandescent electric lamps consisting in carbonizing the slips or filaments while in groves, which maintain the shape and provided for contraction during carbonization. 22nd. The carbonizing plate provided with a groove for shaping the material, and a chamber or chambers per-mitting contraction during carbonization. 23rd. A carbonizing flask and the plates thereof made of nickel. 24th. The carbonizing flask or box, provided with grooves for the reception of the fibre. 25th. The carbonizing over con-sisting of a case, and system of gas and air supply pipes combined. 26th. The combination of a case or cover therefore provided with an inspection aperture and cover, means for supplying gaseous fluid to the interior of the case and means for mingling air under pressure with the fuel. 27th. The combination, with one derived circuit of a multiple arc system, of two or more lamps, each of a fractional resistance and radiating surface of the re-sistance, and radiating surface of the standard lamps of the system, the more lamps, each of a fractional resistance and radiating surface in the re-sistance, and radiating surface of the standard lamps of the system, the fraction being the number used. 28th. The combination, with one socket or holder, and one derived circuit, of one circuit controller and two or more lamps, each of a fractional resistance, and radiating surface of a standard lamp. 29th. The combination, with the incandescing conductor of an eleclamp. 29th. The combination, with the incandescing conductor of an elec-tric lamp, of two fluid columns sustained by atmospheric pressure, and form-ing both a part of the circuit and a hermetical seat to the lamp. 30th. The combination, with the incandescing conductor and the fluid columns, of re-servoirs connected to the source of electricity, and into which the columns dip for the maintenance of the columns and the completion of the circuit therethrough. 31st. The combination, with an electric lamp, of the stand or support therefor, consisting of an insulating base and top, connected by adjustable standards. 32nd. The combination, with a globe or chamber, of a much larger chamber or reservoir, connected to it exhausting apparatus which maintains there a high degree of exhaustion. 33rd. The combina-tion of a proving chamber or globe, a mercury reservoir tor scaling the same. 34th. The combination of a globe or chamber, a second and much larger