same to travel around the fixed disc or plate, substantially as and for the purpose set forth. 8th. In combination, a battery, the primary coil of an inductorium, the signalling device of an automatic responding instrument, constructed to be operated by means of a motor, a receiving instrument, a call apparatus, constructed to lock the automatic responding intrument, the secondary coil of the inductorium and a current generator included in the line circuit, substantially as and for the purpose set forth. 9th. In combination, the responding instrument, constructed and operated substantially as described, the battery n^2, the primary coil n^1 of the inductorium n, the line wire m the call apparatus i. j adapted to lock, the responding instrument, the line wire m^1, the secondary coil m^2 of the inductorium n and the receiving instrument m^3 and electrical generator, substantially as and for the purpose set forth. 10th. In combination, the automatic responding instrument composed of the disc d, insulated block e, contact brush h, carried by and farming a part of the motor f, the battery n^2, the connecting circuit n^3, n^4 and the primary coil n of the inductorium of a telephonic transmitter, substantially as and for the purpose set forth. 11th. A telephonic system, comprising the following instrumentalities: the call apparatus i j, spring switches r, t^2, lever s, receiver t, the secondary coil m^2 of the inductorium n included in the line circuit, the microphonic transmitter o, battery n^2, automatic responding instrument d, e, h, f, the switch o^4 and primary coil n^1, of the inductorium included in a local circuit, in combination substantially as set forth. 12th. In an automatic responding instrument for electric circuits, in combination, the spring motor f, the contact brush h, the fixed disc d, provided with the teeth d^1, the insulated block e, the circuit wire n^3 connected to the disc d, the primary coil n^1 of the inductorium and the battery n^2, substantially as set forth. 13th. In an automatic responding instrument for electric circuits, in combination, the fixed disc d provided with the teeth d^1, the shield plate c, shaft b pointer b^1 the dial plate a^1 and the rotating contact brush h, substantially as set forth. 14th. In an automatic responding instrument for electric circuits, in combination, the wheel b of a motor, the contact brush h, the stop pin h^1, the arm i of the armature i^1 of an electro-magnetic device, the adjustable shield plate c, the fixed toothed disc d and the insulating block e, substantially as set forth. 15th. In an automatic responding instrument for electric circuits, in combination, the fixed disc d provided with the series of teeth d^1 and the series of small teeth d^2, the rotating brush h, the insulated block e, the shield plate c adapted to cover all the teeth d^1 and leave the teeth d^2 exposed, and to expose one or more of the teeth d, and at the same time cover the teeth d^2, substantially as and for the purpose set forth.

No. 21,418. Sealing Device for Seal Locks.

(*Appareil pour Sceller les Serrures.*)

Joseph M. Edgar, Argentine, Ks., and John Z. Roraback, Kansas City, Mo., U.S., 14th April, 1885: 5 years.

Claim.—1st. In combination with the seal lock having a suitable receptacle in the lock plate or hasp, and a perfaration through said lock plate, of a seal composed of fibrous material arranged in said receptacle and over said perforations, for the purpose described. 2nd. In combination with the seal lock, of a hasp having a suitable receptacle, a perforation through the lock plate in proximity to the latch, and a seal composed of fibrous material arranged in said receptacle and over said perforation, for the purpose described. 3rd. In combination with the seal lock, having a suitable receptacle in the said lock, and adapted to protect the opening to the latch, of a seal composed of a water-proof material, as described.

No. 21,419. Seal Lock. (*Serrure Scellée.*)

Joseph M. Edgar, Argentine, Ks., and John Z. Roraback, Kansas City, Mo., U.S., 14th April, 1885; 5 years.

Claim—1st. A seal lock consisting of a plate, having suitable transverse slots, and a locking device, a seal holder upon said plate adapted to retain a seal over one of said slots, and a hasp provided with a suitable recess and opening adapted to fit over said seal holder and exhibit a seal, and a keeper on said hasp adapted to enter one of said slots and engage with the locking device, as and for the purpose described. 2nd. In a seal lock, the combination, with the perforated seal plate of a latch and a staple, one prong of which staple is adapted to serve as a pivot for said latch, and the opposite prong as a lug for the latch to rest upon, as shown and described. 3rd. The combination, in a seal lock, with the perforated plate of the latch and a staple, one prong of which staple is adapted to serve as a pivot for said latch, and the opposite prong as a lug for the said latch to rest upon, and a recess in said latch, as shown and described. 4th. In a seal lock, the combination, with the latch, provided with an inclined end, as shown, and a slot in the seal plate in proximity to said latch, and inclined as shown and described.

No. 21,420. Automatic Tram Greaser for Greasing Trams in Coal and other Mines. (*Appareil Graisseur Automatique pour Graisser les Ornières à rebord dans les Mines de Charbon et autres.*)

Daniel Ross and Charles Archibald, Cow Bay, U.S., 14th April, 1885; 5 years.

Claim.—1st. In a tram oiler, the box A, provided with hopper B, as shown and described for the purpose set forth. 2nd. In a tram oiler, the shaft b, provided with brushes f, loose wheel d, crank c and balance i, as shown and described for the purpose set forth. 3rd. In a tram oiler, the box A, having hoppers B, in combination with shaft b, crank c, balance in and loose wheel d, arranged as shown and described for the purpose set forth.

No. 21,421. Heating Stove. (*Poile de Chauffage.*)

James Jamieson and John G. Bowes, Hamilton, Ont., 14th April, 1885; 5 years.

Claim—1st. In combination, with a heating stove, of the ring A formed with an opening B, and seats b, b to receive, and be fastened thereto, an interchangeable plate C or an interchangeable hot air pipe collar D, substantially as and for the purpose specified. 2nd In a heating stove, the combination of the ring A, and seats b, b, substantially as and for the purpose specified. 3rd. In a heating stove, the combinatin of the ring A, and movable plate C substantially as and for the purpose specified. 4th. In a heating stove, the combination of the top A, and interchangeable hot air pipe collar D, substantially as and for the purpose specified. 5th. In combination, with the hot air pipe collar D, of the casting G, the same being attached thereto to cover the space under the back part of the said collar, substantially as specified.

No. 21,422. Combined Harrow, Clod Crusher and Stalk Cutter. (*Herse, Brise-Motte et Coupe-Tige Combinés.*)

David M. McElhaney, Gustav A. Klein, Adolph Caden and Marie Caden, Buena Vista, Ohio, U.S., 14th April, 1885; 5 years.

Claim.—1st. A combined harrow, clod-crusher and stalk-cutter, constructed substantially as herein shown and described, and consisting of the wheels and axle provided with cutters, the stationary frame provided with cutters and the hinged frame provided with curved horrow teeth, as set forth. 2nd. In a combined harrow, clod-crusher and stalk-cutter, the combination with the frames E, C and the revolving axle B, of the stationary curved harrow teeth J, the stationary cutters K, and the revolving cutters D, substantially as herein shown and described, whereby the soil will be pulverized and clods, sods, stalks and weeds will be crushed and cut in pieces, as set forth. 3rd. In a combined harrow, clod-crusher and stalk-cutter, the combination, with the frame C, provided with cutters K, and the frame E provided with curved harrow teeth J, of the hinges F and the hooks G, substantially as herein shown and described, whereby the said harrow teeth can be readily secured in working position, and can be raised from the ground for convenience in passing from place to place, as set forth.

No. 21,423. Lubricating Carriage Axles.

(*Graissage des Essieux de Voitures.*)

Edouard J. Dubeau, Quebec, (Assignee of Pierre Proteau, Beauport, Que.,) 14th April, 1885; 5 years.

Claim.—1st The axle B, provided with a diagonal bore F, longitudinally from the outer end, meeting a radial bore H, nut D having an oil reservoir E on the outer end of the axle, and wire G inserted loosely in bore F, as set forth. 2nd. The axle B, having a diagonal bore F, extending from the outer end of the axle to the axle box A, and provided with wire G inserted loosely in the box, in combination with a hollow nut D screwing on the outer end of the axle, as and for the purpose set forth. 3rd. The axle B, having a diagonal bore F from the outer end inwardly, and a nut D having a reservoir E screwing on the axle, in combination with an axle box A, as set forth.

No. 21,424. Electric Fire Alarm.

(*Avertisseur d'Incendie Electrique.*)

Sidney A. Chase and William R. Mapes, Evart, Mich., U.S., 14th April, 1885; 5 years.

Claim.—1st A relay for an electric fire alarm apparatus, consisting of the usual magnets and armature, one insulated contact screw which is in contact with the armature, while the main line circuit remains closed, and which has a wire passing to a binding post, one contact screw having wire connections with another binding post, and two wires connected to the armature and passing to binding-posts, the said wires forming connections with a closed and an open local circuit upon which the alarm instruments are placed, as and for the purpose shown and set forth. 2nd. In an electric fire-alarm apparatus, the combination of two relay-magnets upon the main-line circuit, an armature having wires passing to two binding-posts, a screw which is in contact with the armature while the latter is attracted by the magnets, having a wire passing to a binding-post, a screw which comes in contact with the armature when the latter is released, having a wire passing to a binding-post, with the wires of an open local circuit, having a vibrating alarm-bell and a battery, and connected to the binding-post receiving the wire from the screw coming in contact with the released armature and to the post receiving the wire from the armature, and the wires of a closed local circuit having an alarm-releasing instrument and a battery, and connected to the binding-post receiving the other wire from the armature and to the post receiving the wire from the screw coming in contact with the attracted armature, as and for the purpose shown and set forth. 3rd. A relay for an electric fire-alarm, having an open local circuit provided with an alarm-bell, and with an alarm-releasing instrument and a battery, the said relay consisting of the usual magnets and armature, a frame having wire connection with a binding-post and having an insulated aperture for the contact screw touched by the armature when the latter is at rest, and having the contact screw touched by the released armature, a contact-screw passing through the insulated armature and having wire connection with a binding-post, and two binding-posts having wire connections with the armature, as and for the purpose shown and set forth. 4th. In an alarm-releasing instrument for an electric fire alarm, the combination of the magnets of a closed circuit, a lever pivoted below the ends of the magnets and having an armature x attracted by the magnets, a spring secured to the lever and tilting it outward when the lever and armature is released, and an alarm released by the outwardly tilted lever, as and for the purpose shown and set forth. 5th. In an electric fire-alarm, the combination of a pair of relay-magnets of a closed circuit, or lever pivoted below the ends of the magnets and having an armature held by the magnets, a spring drawing the lever from the magnets, a trigger having a hooked upper end and pivoted above the free end of the lever, with its lower end projecting in front of the upper end of the lever, a lever having one end engaged by the hooked end of the trigger and having a weighted cord secured to its other end,