

priated to a particular line, so that a given number of stations are normally connected with each line, a call bell at each station, permanently connected with the particular main line to which that station belongs, telephonic and signalling apparatus normally connected with that line, and means, substantially as indicated, for withdrawing said telephonic and signalling apparatus from the said main line, and for including it in the circuit of any other main line, so that call telephone signals may be exchanged between it and the stations on the second line. 3rd. The combination, substantially as hereinbefore described, of a series of subscribers' stations, a series of main lines, each of the said lines extending to all of the said stations, a telephonic and signalling apparatus at each station, normally in circuit with one of the said main lines, on which incoming calls may be received and conversation carried on, switching devices whereby the said apparatus may be included for outgoing calls and conversation in any other of the said main lines, and means for the automatic restoration of the said apparatus to its normal line circuit, upon the conclusion of a communication, substantially as described. 4th. The combination, substantially as hereinbefore described, of a series of subscribers' stations, a series of main lines, all of which extend to and loop into all the stations, a series of spring-jacks, or other loop-receiving devices, one for each line at each station, a telephone and signalling apparatus at each station, the said apparatus consisting of a signal bell for receiving call signals, a generator for sending calls, a telephone or telephones, and a switch for constituting a support for the receiving telephone, with switching devices included, normally in one of the said main lines, but adapted to be withdrawn therefrom and included in any one of the line circuits by means of the spring-jacks therefor, means, controlled by the telephone holding switch bar, for maintaining the said apparatus in the desired line circuit during the displacement of the telephone, and other means, actuated by the telephone holding support when the telephone is replaced therein, for automatically transferring the apparatus to its normal connection. 5th. In a system of telephonic intercommunication, in which a number of stations are directly connected together by a series of main lines, and at each station thereof a series of spring-jacks or other loop-receiving and circuit-closing devices, each jack or circuit closer itself constituting a station loop of a separate main line circuit, a signal bell for receiving incoming calls permanently connected in the circuit of one of the said main lines, an instrument loop including in its circuit a generator for sending out-going call-signals, and a telephone, or telephones, and adapted to be normally included in and form a part of that main circuit in which the signal bell is connected, but capable of transference therefrom to any other of the said main lines by means of the respective loop receiving devices, whereby the subscriber at any station is enabled to signal and converse with any station on any of the lines, and at the same time may receive a call signal upon his own line, substantially as described. 9th. In a system of telephonic communication comprising a number of main lines entering all the stations and terminating thereat in spring-jacks, one for each main line, the combination of the telephonic and signalling apparatus in a loop at each station, and the wedge forming the terminals of said loop, said wedge being carried by the telephone supporting arm, and being adjustable thereon, to make contact with the spring-jacks of any line circuit, whereby on adjusting the said wedge and removing the telephone the said loop is automatically included in the desired main line circuits, and on restoring the telephone such connection is broken, substantially as described. 7th. In a telephone system of the character described, the combination, at a station, of the spring-jacks, one for each main line, the wedge forming the terminals of a loop, including the telephone and signalling apparatus, said wedge being carried by and adjustable on the telephone supporting arm, so as to make contact with one of the spring-jacks when the telephone is removed, an auxiliary spring jack permanently included in the circuit of the particular main line to which the station belongs, and a second wedge, also carried by the supporting arm, and arranged to make contact with said last-named spring-jack when the telephone is in place, whereby the removal of the telephone automatically includes the said loop in one of the main line circuits, determined by the position of the adjustable wedge, and its replacement automatically restores said loop to the particular line to which the station belongs, substantially as described.

No. 22,353. Double Acting Pump.

(*Pompe à Double Effet.*)

Daniel R. Cloud, Detroit, Mich., U. S., 2nd September, 1885, 5 years.

Claim.—1st. In a pump, as set forth, the combination of the valve-chamber B, the ledge l, the valve H, its thimble n fitting over the thimble O containing the coiled spring, the arms m supporting the guide pins i, the free ends of said pins engaging with the wall of the cell, as and for the purposes set forth. 2nd. In a double-acting pump, the combination of the body having the parts formed integral, as set forth, of the horizontal valves and ports t, t, the vertical valves, as specified, having ports f, f, of the plunger or piston head operated by the means set forth, of the plate N₁, the plate N₂ having stuffing box and discharge pipe R, said pipe located vertically over the horizontal valves of a supply pipe located between the vertical valves and ports leading into the chamber D, of a vent and drip-cock and bolts for securing said parts together, as and for the purposes specified. 3rd. In a pump, substantially as specified, the combination of the body containing the barrel C, the valve chambers and ledges with chamber D, the partition E having ports t, t, the U-shaped supply openings leading from the chambers B into the barrel C, said parts formed integral of the valves, as set forth, the plates N, N₁ having the annular flanges D₁ and cut out portions i, said flanges fitting within the barrel, as specified, the bolts for securing said plates to the body, the supply and discharge pipes, the piston-head and means for operating said piston-head, substantially as set forth. 4th. In a pump, substantially as set forth, the body A having the chambers formed integrally therewith, the plates N, N₁ adapted to fit over said chambers, said plates having the annular flanges D₁ with openings i fitting within the ends of the barrel C, as and for the purposes specified.

No. 22,354. Temporary Binders for Holding Blank Leaves, etc. (*Relieure Mobile pour les Feuilles, etc.*)

John W. Appleby, Kalamazoo, Mich., U.S., 2nd September, 1885; 5 years.

Claim.—1st. The combination of the cover and contents, the binder provided with the arms passed through the holes in the cover, one arm jointed, the free ends of the arms being perforated, the horizontal bar of the binder being buried in the cover, and a rod passed through the perforated free end of the arms, substantially as set forth. 2nd. The combination of the cover, the horizontal bar provided with the arms extending through the cover, one arm jointed, and a rod forming detachable connection with the free ends of the arms, substantially as set forth. 3rd. The combination of the cover, the binder having the arms passed through the cover, one arm jointed, both having a series of holes in their free end and a rod passed through said holes, substantially as set forth. 4th. The combination of the contents, the cover having the thin portions at the rear on one side, and the binder and binding-rod, all arranged substantially as set forth.

No. 22,355. Nitrous Oxide Gasometer.

(*Gazomètre à Oxyde Nitreux.*)

Hugh McLaren, London, Ont., 2nd September, 1885; 5 years.

Claim.—1st. In a gasometer, the inner cylinder B closed at top and bottom in combination with cylinder A and gas receiver C, substantially as shown and described and for the purpose specified. 2nd. In a gasometer, the hollow air-tight flange or float J formed on inner face of the gas receiver C, in combination with the cylinder B, substantially as shown and described and for the purpose set forth. 3rd. In a gasometer, the band I, in combination with the inner cylinder B and gas receiver C, substantially as shown and described and for the purpose specified. 4th. In a gasometer, the band I and inner cylinder B, in combination with the gas receiver C formed with the hollow and tight flange J, substantially as shown and described and for the purposes specified. 5th. In a gasometer, the screw L and sustaining ring M, in combination with the gas cylinder F, substantially as shown and described and for the purpose specified.

No. 22,356. Device for Suspending Fire Grenades. (*Appareil pour Suspendre les Grenades à Incendie.*)

James A. House, Bridgeport, Conn., U.S., 2nd September, 1885; 5 years.

Claim.—1st. In a device of the character described, a receptacle containing a fire-extinguishing fluid and suspended by a fusible connection, in combination with a breaker, substantially as described, attached to said receptacle, whereby upon the fusing of the connection the receptacle is caused to fall and be crushed, substantially as set forth. 2nd. An automatic fire-extinguisher, the same consisting of a receptacle containing a fire-extinguishing fluid, a connection of metal fusible at low temperature for suspending the same and a breaker substantially as described, attached to said receptacle whereby upon the fusing of the connection the breaking of the receptacle may be accomplished, substantially as set forth. 3rd. In a fire extinguisher, the receptacle containing the fluid suspended by a fusible connection, in combination with a breaker, substantially as described, connected to the receptacle and also connected independently with the support for the receptacle, whereby when the fusible connection is destroyed the receptacle falls and operates the breaker to destroy the same.

No. 22,357. Fire Grenades.

(*Grenades à Incendie.*)

James A. House and Charles H. Dimond, Bridgeport, Conn., U.S., 2nd September, 1885; 5 years.

Claim.—1st. In a fire-extinguisher of the character described, the combination with a suspended fragile receptacle containing the fire-extinguishing fluid of a spring wire bent as described, and provided with hammers upon its ends, wires adapted to retain said spring wire against its resiliency and a fusible band placed around the extremities of said wires and thereby securing the latter in their position around the spring wire, substantially as set forth. 2nd. In a fire-extinguisher of the character described, the combination with a suspended fragile receptacle containing the fire-extinguishing fluid of hammers secured to the two extremities of a single spring wire and a fusible lind or band attached to said wire and adapted to resist its resiliency and keep said hammers in a distended position, substantially as shown and described. 3rd. In a fire-extinguishing apparatus, the combination with a suspended fragile receptacle containing the fire-extinguishing fluid, of hammers secured to the extremities of a spring wire bent as shown, and means secured to said wire by a fusible connection and adapted to hold said hammers distended, whereby upon the fusing of the connection the wire may be released and the hammers dashed against said receptacle, substantially as set forth. 4th. The combination, with the suspended receptacle, of wire A bent as described and provided with hammers E, the securing-wires F, H, and the fusible band T, all arranged as described and for the purpose specified.

No. 22,358. Pruning Implement. (*Secateur.*)

Horace Case, Freeport, Mich., U.S., 2nd September, 1885; 5 years.

Claim.—The double cutting-blades A, B, hinged together by the rivet d and adapted to cut in either direction and provided with the handles e, f, and having the shorter handle e laterally bent at a right angle to the longer handle f, substantially as described.