

No. 29,811. Toilet and Wrapping Paper.*(Papier de latrine et d'enveloppe.)*

Seth Wheeler, Albany, N.Y., U. S., 2nd September, 1888; 5 years.

Claim.—A roll of toilet or wrapping paper containing lines of weakness, each of which is made up of perforations plainly indicating the position of the line, combined with incisions to increase the weakness of the line and avoid litter, substantially as described.

No. 29,812. Roll for Iron Rolling Mills.*(Rouleau pour laminoir.)*

Arthur W. H. Collard, Pittsburgh, Penn., 2nd September, 1888; 5 years.

Claim.—1st. In a roll for metal rolling, an interior central portion formed of brick or earthen material, and the outer portion of metal which incloses the central portion, substantially as and for the purposes described. 2nd. The roll formed of an outer portion of metal, and a center piece of brick material having necks *a* and *a'* formed at its extremities, substantially as and for the purposes set forth.

No. 29,813. Adjustable Wire-Twisting Wrench. (Pinces variables à tortiller le fil de fer.)

Charles E. Wintrobe, Huntington, Ind., U. S., 2nd September, 1888; 5 years.

Claim.—1st. The combination of a main casting provided with arms forming one half of the jaws, and an adjustable casting having projections corresponding with the arms and forming the other half of the jaws placed on the main casting, and means for holding the adjustable casting in any desired position, whereby the jaws are adapted for twisting wires of different thicknesses, substantially as set forth. 2nd. The combination of the casting A, provided with the arms B forming one half of the jaws, the adjustable casting L which is pivoted upon the casting A and which is provided with projections which form the other half of the jaws, and a means for holding the casting L in any desired position, substantially as described.

No. 29,814. Nail Plate Feeding Machine.*(Appareil à alimenter les machines à clous.)*

Alfred B. Trudol, Montreal, Que., 2nd September, 1888; 5 years.

Claim.—1st. In a nail plate feeding apparatus, the combination, with the feed cylinder rocker shaft immediately under same, and means for rocking such shaft, of pulley B mounted on rocker shaft, and straps E₂, E₃ secured on cylinder and attached to sides of pulley at points below the axis of rotation of the shaft, all as herein set forth. 2nd. The combination of the pulley B mounted on rocker shaft A, and formed with hub, web, and segmental flanges or peripheries, and the bar D to which ends of straps E₂, E₃ are attached, all as herein set forth. 3rd. The combination, with the cylinder C, and double cam F for raising and lowering same, of the rest G and renewable bearing surface H, as and for the purpose described. 4th. The combination, with the cylinder E of the nose pieces K, K bolted thereto, as herein described.

No. 29,815. Fire Ladder and Fire-Escape Combined. (Echelle-sauveteur d'incendie.)

William Davison, London, Eng., 2nd September, 1888; 5 years.

Claim.—The combination, with the body A, the extension J thereof, the shaft D attached to said body, the wheels B mounted upon said shaft D, and the springs E attached to said body, of the ladder F attached to the said body, the struts G, G attached to said body and said ladder, the movable ladder N, the cage H, the tube L and the roll M working in said tube, and means, substantially as specified, for extending said body for extending said ladders, and for raising and lowering said cage, all substantially as and for the purpose set forth.

No. 29,816. Process and Apparatus for the Manufacturing of Gas for Heating and Illuminating and for the Production of Cyanogen or some of its compounds. (Procédé et appareil de production du gas d'éclairage et de chauffage et du cyanogène ou quelques uns de ses composés.)

Samuel R. Dickson, New York, N. Y., U. S., 5th September, 1888; 5 years.

Claim.—1st. The herein described process for producing combustible gas, as carbonic oxides and hydrogen and cyanogen, or a compound thereof, consisting of the simultaneous introduction of the following elements, to wit: steam, air, finely divided carbon and alkali, into a heated chamber, the forcible mixing of said elements, and the simultaneous decomposition and combination of said elements to produce in said chamber the gas and the cyanogen or compound thereof, substantially as set forth. 2nd. The herein described process for producing combustible gas, as carbonic oxide and hydrogen and cyanogen, or a compound thereof, by the elimination of nitrogen from the nitrogen-bearing material, consisting of the introduction of the nitrogen-bearing material into a heated chamber, and forcibly disseminating into and through the chamber pulverized carbon and an alkali, substantially as set forth. 3rd. The herein described process for producing combustible gas, as carbonic oxide and hydrogen, and cyanogen or a compound thereof, by the elimination of nitrogen from the nitrogen-bearing material, consisting of the introduction of the nitrogen-bearing material into a heated chamber, and forcibly spraying into and through the chamber pulverized carbon and an al-

kali by a jet of steam, substantially as set forth. 4th. The herein described process for producing combustible gas, as carbonic oxide, and hydrogen and cyanogen, or a compound thereof, consisting of the simultaneous introduction of the following elements, to wit: steam, air, finely divided carbon and alkali, into a heated chamber, the forcible mixing of said elements, the simultaneous decomposition and recombination of said elements, to produce in said chamber the gas and the cyanogen or compound thereof, and the passing of said gas through incandescent carbon, substantially as set forth. 5th. The herein described process for producing combustible gas, as carbonic oxide and hydrogen, and cyanogen or a compound thereof, consisting of the simultaneous introduction of the following elements, to wit: steam, air, finely divided carbon and alkali, into a heated chamber, the forcible mixing of said elements, the simultaneous decomposition and recombination of the elements to produce in said chamber the gas and the cyanogen or compound thereof, and the passing of said gas through incandescent carbon and through a carburetting retort, substantially as and for the purposes described. 6th. In an apparatus for the manufacture of gas, the combination, with a furnace chamber, of a spraying and mixing device, a second furnace compartment above and communicating with the first, a carburetting retort within and heated by said second furnace chamber, and communicating at its upper end therewith, and a collecting chamber for receiving solid material from the first chamber, substantially as set forth. 7th. In an apparatus for the manufacture of gas, the combination, with a furnace chamber, of an injector, a second furnace compartment above and communicating with the same, a partition for preventing the fall of ashes into the first chamber, a carburetting retort within the second compartment communicating therewith at the upper end, and adapted to be charged with refractory material, and hydrocarbon, as described, and a collecting chamber for receiving solid material from the first retort, substantially as set forth. 8th. In an apparatus for the manufacture of gas, the combination, with a furnace chamber, of the coking furnace having the air and steam pipes, a pipe connecting the coking furnace with the first chamber, an injector for forcing material into the furnace chamber, and supply pipes for the injector, substantially as set forth. 9th. In an apparatus for the manufacture of gas, the combination, with a furnace chamber E, the compartment above the same adapted to receive incandescent carbon, the central carburetting retort situated in both of said compartments, opening into the upper and adapted to contain refractory material and the supply pipe K, substantially as set forth.

No. 29,817. Bed Attachment.*(Disposition aux couchettes.)*

Henry S. Allen, Toronto, Ont., 5th September, 1888; 5 years.

Claim.—The back support C hinged to the frame A, A, and held in position by the pawls D, and the ratchet E, as hereinbefore described and for the purpose set forth.

No. 29,818. Button-Hole Attachment for Sewing Machines. (Appareil à faire les boutonnières pour machines à coudre.)

Henry J. Williams, New York, N. Y., U. S., 5th September, 1888; 5 years.

Claim.—1st. The combination of the frame plate, the feed plate, the rack secured thereon, a pinion mounted in the frame plate, the driving wheel having ratchet teeth in its periphery, and cams or wipers alternately set upon its opposite sides, a lever vibrated by the driving wheel, connections between the lever and the feed plate for giving the latter a vibrating movement, and connections between the lever and pinion that engage with the rack for giving the feed plate a longitudinal movement, substantially as set forth. 2nd. The combination of the frame plate, the driving wheel having teeth in its periphery, and cams or wipers alternately set upon its opposite sides, the vibrating lever in operative connection with the driving wheel, a pinion mounted on the frame plate operatively connected with the vibrating lever, the rack on the feed plate with which the pinion meshes, and connections between the vibrating lever and the feed plate for giving the latter a vibratory motion, substantially as set forth. 3rd. The combination of the frame plate, the feed plate, the driving wheel, means for rotating it, the vibrating lever operated by the driving wheel, the rack secured on the feed plate, the pinion with which it meshes, the ratchet wheel rigidly connected with the pinion, and operatively connected with the vibrating lever, and a handle or knob for withdrawing the pinion from engaging with the rack, substantially as set forth. 4th. The combination of the frame plate, the feed plate, the driving wheel, means for rotating it, the vibrating lever operated by the driving wheel, the pawl on the end of said lever, the ratchet wheel with which it engages, the pinion rigidly secured thereto, the rack on the feed plate with which the pinion engages, and an adjustable gauge that regulates the movement of the pawl on the end of the vibrating lever, substantially as set forth. 5th. The combination of the frame plate, the feed plate, the driving wheel mounted on the frame plate, having teeth in its periphery, and cam-shaped lugs or wipers on its opposite sides, a lever pivoted to the frame plate and having a slotted upright extension in which the driving wheel works, and a backwardly-extending arm carrying a pawl, the ratchet wheel with which said pawl engages, the pinion secured thereto, the rack secured to the feed plate with which the pinion meshes, and the securing pin G extending through the slot in the feed plate, and the vibrating lever and adjustable therein, substantially as set forth. 6th. The combination of the button hole attachment herein described, the bed plate of a sewing machine and the removable throat plate X, having a transverse offset at *x*, to form a cover for the ordinary feeding mechanism of the sewing machine, substantially as set forth.

No. 29,819. Adjustable Pillow Sham Holder.*(Porte-housse d'oreiller mobile.)*

William Jones, Buffalo, N. Y., U. S., 5th September, 1888; 5 years.

Claim.—A pillow sham holder, comprising the adjustably connected