

PATENTS OF INVENTION.

(ISSUED FROM 30TH SEPT. TO 20TH NOV., 1869.)

No. 83. Patrick Butler, Walsingham: 'The Loose Jointed Spring Butt Hinge.' 1st Oct., 1869.

No. 84. Alexander A. McCallum, Tweed, Miller: 'The Patent Paper Cheese Box.' 1st Oct., 1869.

No. 85. John Grenville, Thorold: 'The Grenville Door and Gate Fastener.' 1st Oct., 1869.

No. 86. Israel Kinney, Woodstock: 'Kinney's Wooden Buggy Spring.' 1st Oct., 1869.

No. 87. George Scott, Montreal, Pattern Maker: 'Scott's Horizontal Grinding Machine.' 1st Oct., 1869.

No. 88. Alexander McArthur, Elora, Machinist: 'McArthur's Self Raking Regulator.' 1st Oct., 1869.

No. 89. Henry Carter, Malahide: 'Carter's Improved Ditching Machine.' 1st Oct., 1869.

No. 90. Charles Horatio Waterous, Brantford: 'Waterous Set Gauge.' 1st Oct., 1869.

No. 91. William Baker, Arnprior: 'Baker's Brick Press and Setter.' 19th Oct., 1869.

No. 92. Charles William Mugridge, Hamilton: 'The Spanish Grass Broom, the Spanish Grass Scrubber, and The Broom Grass Splitter.' 9th Oct., 1869.

No. 93. Mitchell Prue, Walsingham: 'Prue's Improved Rotating Harrow.' 9th Oct., 1869.

No. 94. William Muir, Montreal: 'Muir's Improved Multiple Sewing Machine.' 15th Oct., 1869.

No. 95. George Groom, Brockville: 'The Canada Farmer's Churn.' 17th Oct., 1869.

No. 96. Frederick Baynton Sparkes, Toronto, Assignee of George Whitney Sylvester, of Dundas: 'Sylvester's Deodorizer, Decolorizer and Extractor.' 17th Oct., 1869.

No. 97. Frederick Baynton Sparkes, Toronto, Assignee of George Whitney Sylvester, of Dundas: 'Sylvester's Carbon Burner and Re-burner.' 17th Oct., 1869.

No. 98. Frederick Baynton Sparkes, Toronto, Assignee of George Whitney Sylvester, of Dundas: 'Sylvester's Apparatus for extracting from and cleansing any filtering or macerating medium of any soluble matter remaining therein.' 17th Oct., 1869.

No. 99. Antoine St. Jacques, Yamachiche, Coach Builder: 'Le Résolvant Canadien.' 17th Oct., 1869.

No. 100. John Bonathan, Bowmanville, improvement on machines for bending wood: 'The Economical Bending Apparatus.' 15th October, 1869.

No. 101. John Bowes, Warwick, Lambton: 'The Universal Eclipse Churning Power.' 15th October, 1869.

No. 102. Samuel Buschlen, Port Elgin, Bruce: 'Buschlen's Superior Clothes Dryer.' 15th October, 1869.

No. 103. Brooks Wakefield Walton, Kettleby, York: 'B. W. Walton's Improved Combined Cultivator and Grain Drill.' 15th October, 1869.

No. 104. Archibald Douglas, City of Ottawa, a machine or apparatus for attachment to the pads of saddles of horses' harness to support the pole of four-wheeled vehicles, &c.: 'Douglas Relief Bar.' 15th October, 1869.

No. 105. Uriah Phelps, Beachville, Oxford: 'Phelps' Horse-shoe Clincher.' 15th October, 1869.

No. 106. Jesse Morningstar, Village of Waterloo: 'Morningstar's Improved Flexible Cultivator.' 15th October, 1869.

No. 107. Anthony Sluthour, Brockville: 'The Eureka Pump.' 15th October, 1869.

No. 108. Charles Mee, Toronto: 'Mee's Dominion Bag Tie.' 21st October, 1869.

No. 109. Joseph Léon Octave Vidal, of the Parish of St. Louis de Lotbinière: 'Charrue avec orille à base élargie à main ou rapportée.' 21st October, 1869.

No. 110. Benjamin Pound Snider, Bertie: 'Snider's Dominion Wood Saw.' 21st October, 1869.

No. 111. John Radley Osborne, Guelph, improvement on single thread sewing machine: 'Osborne Flexible Looping Hook.' 21st Oct., 1869.

No. 112. Jacob Henry Sweeney, Amherst: 'Sweeney's Improved Hay Lifter.' 21st October, 1869.

No. 113. Jared Munson, Collingwood: 'Munson's Dominion Bee Hive.' 28th October, 1869.

No. 114. Samuel Swan Phillips, St. Catharines, a machine for running boats up streams, adaptable to either steamboats or sailing vessels: 'Phillips' Rapid Climber.' 28th October, 1869.

No. 115. Williams Dales, Cockstown: 'Dales' Hay or Barley Fork.' 28th October, 1869.

No. 116. Peter J. Pilkey, Barford, Co. Beant, improvements in Wagon Racks for carrying hay and straw: 'The Ontario Hay Rack.' 28th Oct., 1869.

No. 117. Louis Larivée, Montreal, a composition for preventing the falling off of hair and facilitating its growth: 'Le Régénérateur Indien.' 28th Oct., 1869.

No. 118. John Johnson Warner, Otterville, Oxford: 'Warner's universal self-acting whittling snap.' 30th October, 1869.

No. 119. Gilbert McMicken, Windsor, Stipendiary Magistrate, improvement on machines for making salt from salt water, or for crystallizing or precipitating salts or chemical substances held in solution: 'McMicken's Improved Evaporator.' 30th Oct., 1869.

No. 120. David Bassendale Garton, Barrie: 'The Victoria Clothes Washer.' 30th Oct., 1869.

No. 121. James Allen, Kerwood, Middlesex: 'The Matchless Churn Power.' 30th Oct., 1869.

No. 122. John Foster, Montreal, Civil Engineer, an apparatus for removing snow from railway tracks: 'Foster's Snow Clearer for Railways.' 30th Oct., 1869.

No. 123. James Lewis Morden, London: 'Prince Arthur's Dominion Pea Reaper.' 1st Nov., 1869.

No. 124. Anthony Sluthour, Brockville: 'The Champion Pump.' 1st Nov., 1869.

No. 125. Peter Routledge, Township of King, Co. York: 'Horse Shoe Punching Machine.' 1st Nov., 1869.

No. 126. Hudson Gunning Abbott, London: improvement on Springs for Vehicles: 'Abbott's Double Arch Spring.' 1st Nov., 1869.

No. 127. David Louis Rey, Montreal: 'Improved Electric Regulator and Sympathetic Clocks.' 1st Nov., 1869.

No. 128. Charles Hough, Quebec: 'Improved Horse Shovel.' 1st Nov., 1869.

No. 129. Joseph Vessot, Senior, Joliette, and Samuel Vessot, Junior, of the same place, a new sowing and harrowing machine called: 'Semoir et Herse combinés de J. et S. Vessot.' 1st Nov., 1869.

No. 130. George Wright Corbit, Toronto: 'Mendon's Portable Treadle Adjustment.' 8th Nov., 1869.

No. 131. Guillaume Amien Masson, Charlottetown: improvement on carriages to enable them to turn without upsetting, called: 'Masson's Improved Carriage.' 8th Nov., 1869.

No. 132. Israel Kinney, Woodstock: 'The Oxford Washing Machine.' 5th Nov., 1869.

No. 133. George Heale, Toronto: 'Heal's Art or Process for preparing sheep skins for Enamelling or Patenting, and giving to them the consistency of solid leather.' 8th Nov., 1869.

No. 134. Joseph Flint, St. Catharines: 'An Improved Champion Cross Cut Saw.' 8th Nov., 1869.

No. 135. Joseph Flint, St. Catharines: 'An Improved Saw Handle.' 8th Nov., 1869.

No. 136. John Henry Young, Hamilton: 'The New Dominion Churn.' 8th Nov., 1869.

No. 137. James N. Beckwith, Kilsburgh, N.S.: 'The Seventy-five to Ninety per cent. Wind Wheel.' 8th Nov., 1869.

No. 138. John Murphy, St. John, New Brunswick: 'An Improvement in the Manufacture of Scrubbing Brushes.' 8th Nov., 1869.

No. 139. William Henry Dart, Springfield, Halifax, and James Scott Dart, of the same place: improvement on coasting Sleighs and Steering apparatus, called 'Dart's Improved Hand Steering Coaster.' 12th Nov., 1869.

No. 140. Christian Troyer, Stayner: 'Troyer's Improved Car Coupler.' 12th Nov., 1869.

No. 141. James Wright, Hamilton: 'The Imperial Clothes Pin.' 14th Nov., 1869.

No. 142. Charles Irwin, Belleville: 'Irwin's Improved Sewing Machine.' 12th Nov., 1869.

No. 143. Stephen Franklin Humphry, Wardsville: 'The Dominion Sulky.' 12th Nov., 1869.

No. 144. William Henry Goodale, Toronto: 'The Canadian Washing Machine.' 18th Nov., 1869.

No. 145. William Sykes, C.E., Toronto: improvement in the art of tunnelling under rivers with alluvial beds, and machine for carrying out said improvement, called 'Sykes' Tunnelling Art and Shield.' 15th Nov., 1869.

No. 146. Matthew Howles, Hamilton: improvement on Dampers for Stoves, called 'Howles' Adjustable Safety Damper.' 18th Nov., 1869.

No. 147. James Wyeth King, Shubenacadie, Co. Hants, N.S.: improvements in machines by which fish are enabled to surmount and pass dams, cascades and other obstructions in water courses, called 'The King Fish Ladder.' 18th Nov., 1869.

No. 148. Samuel McPherson, Ottawa, Stage Driver, foot warmer and lantern: 'McPherson's Foot Warmer and Combined Lantern.' 18th Nov., 1869.

No. 149. Channery Holmes Guard, London: 'The Improved Fifth Wheel and Spring Supporter.' 18th Nov., 1869.

No. 150. Hermenegilde Baby Casgrain, Ottawa: improvements in arranging records and documents, called 'The Universal Office File.' 26th Nov., 1869.

SCIENTIFIC.

DIAMONDS—Professor Tyndall has just succeeded in igniting a diamond in oxygen by the concentrated rays of the electric light. He has no doubt of his ability to ignite it by the purely invisible rays from the same source. It is interesting to know that a new locality for diamonds is reported by Herr Gustav Rose, of Berlin, which may be considered the first in Europe, if the western slope of the Ural is placed out of the question. The stone referred to was found in the granite quarries of Count Schonborn in Bohemia, and has been unquestionably identified as a diamond, both by the combustion of a splinter into pure carbonic acid, and by its physical and mineralogical properties. Its weight is 57 milligrammes; it is cubical in shape, and is of a light yellow colour, and is probably not the only one to be discovered. Professor Wohler, of Gottingen, has also discovered minute diamonds in a piece of platinum from Oregon.

INSOMNIA CURED BY CHLORAL—Dr. Lincoln relates, in a medical journal published at Boston, the case of a lady, aged 45, who was suffering from nervous prostration, the result of great fatigue and mental uneasiness. During the course of a week she had slept only one hour each night. Opium only had the effect of increasing the insomnia, and valerian, lupuline, &c., and hyoscyamine had been tried without effect. One scruple of hydrate of chloral was then administered, and brought on a sleep of seven hours. The dose was then reduced to 15 grains, administered every night for a week, and in each case succeeded in producing seven or eight hours' sleep without entailing the slightest inconvenience to the patient.

NEW ANÆSTHETICS—Dr. Rabuteau (*Gazette Hebdomadaire*) describes three new anæsthetics with which he has made numerous experiments, viz: Bromoform, bromal, and iodol. Bromoform resembles chloroform, but appears to possess some advantages over it in producing complete anæsthesia without causing profound sleep. Bromal differs from chloral in the substitution of bromine for chlorine. Its action on animals is similar to that of chloral. Iodol is also a powerful anæsthetic, but in moderate quantities it causes convulsions and death, producing congestion of the brain and spinal cord.

TEST FOR ARSENIC—A new and very delicate test for arsenic has been discovered by Bettendorff. Its sensibility is so great that it is said to be capable of detecting one part of arsenic in a million parts of solution: and the presence of antimony does not affect it. In order to apply this test, the arsenious, or arsenic liquid is mixed with aqueous hydrochloric (hydrochloric acid), until fumes are apparent; thereupon stannous chloride is added, which produces a basic precipitate, containing the greater part of the arsenic as metal, mixed with stannic oxide.

METALLIC SPECTRA—M. Robert Thalén has communicated to the Royal Society of Upsala a memoir on the characteristic metallic lines of the spectrum, especially with reference to their wave-lengths. As ordinary spectroscopes do not give entirely accurate readings, varying as they do with temperature and other incidental circumstances, it is necessary in all cases to make the solar spectrum the basis of reference. Augustin's "normal solar spectrum" was, accordingly, the normal starting-point of the author's researches; and, with this as his guide, he has succeeded in constructing a chart, which gives, in millimeters, the wave-lengths of metallic lines within about 0.000001 of their true value. Forty-five metals have been thus investigated, and their spectra mapped. Of these, the following give lines coinciding with those in the solar spectrum: Sodium, calcium, magnesium, iron, manganese, chromium, nickel, cobalt, and titanium. The discovery of the last-named coincidence is due to M. Thalén himself.

A STRANGE STORY.

Not many years since certain miners, working far underground, came upon the body of a poor fellow who had perished in the suffocating pit forty years since. Some chemical agent to which the body had been subjected—an agent prepared in the laboratory of Nature—had effectually arrested the progress of decay. They brought it up to the surface, and for a while, till it crumbled through exposure to the atmosphere, it lay the image of a fine sturdy young man. No convulsion had passed over the face in death—the features were tranquil, the hair was as black as jet.

No one recognized the face—a generation had grown since the miner went down into his shaft for the last time. But a tottering old woman, who had hurried from her cottage at hearing the news, came up, and she knew again the face which, through all these years, she had not forgotten. The poor minor was to be her husband on the day after that on which he died. They were rough people, of course, who were looking on; a liberal education and refined feelings are not deemed essential to the man whose work is to get up coal or even tin; but there were no dry eyes when the gray-headed pilgrim cast herself upon the youthful corpse, and poured into its deaf ear many words of endearment unused for forty-six years. It was a touching contrast, the one so old, the other so young. They had both been young those long years ago, but time had gone on with the living and stood still with the dead.—*London Herald*.

CARRYING A JOKE TOO FAR—Some young ladies and gentlemen who were taking advantage of the fine sleighing not long since, in attending a donation, surprise or wedding party, or something of the kind, were obliged to sit three on a seat. One of the seats contained two gentlemen and one lady. The gentlemen, of course, would not allow the lady to take an exposed seat; she, therefore, sat in the middle. As the night was extremely cold gentleman number one quietly passed his hand (a remarkably small hand, by the way), into the lady's muff. As the muff was not very capacious, the lady removed one of her hands from the same. In a few moments she felt a movement on the other side, and found gentleman number two attempting to pass his hand into the muff on the other side. She then quietly drew her hand from the muff and allowed him to do so. What took place in the muff afterward she is unable to say. But each of the gentlemen privately reported to a small circle of friends how warmly the lady had returned the pressure of his hand in the muff, while the lady as privately reported to her friends the magnificent sale she had made of both gentlemen.—*Saginaw Enterprise*.

DANGERS OF COURTING FAT GIRLS—I was in love once with a fat girl. She was very fleshy. She was enormous. But the course of my true love came to grief. I was sitting with her in the dim twilight one evening. I was sentimental; and said many soft things. I embraced part of her. She seemed distant. She frequently turned her lovely head from me. At last I thought I heard the murmur of voices on the other side. I arose and walked around, and there I found another fellow courting her on the other side. I was indignant, and I upbraided her for her treachery in thus concealing from me another love. She laughed at my conceit, as if she were not big enough to have two lovers at once.—*Don Platt*.

JUSTICE AMONG CROWS—Those extraordinary assemblies, which may be called crow courts, are observed in all parts of the world. They collect in great numbers, as if they had been summoned for the occasion. A few of their flock sit with drooping heads; others seem as grave as if they were judges; and some are exceedingly active and noisy, like lawyers and witnesses; in the course of about an hour the company generally disperse, and it is not uncommon, after they have flown away, to find one or two dead on the spot. Dr. Edmondstone, in his View of the Shetland Islands, says that the crow court or meeting does not appear to be complete before the expiration of a day or two; crows come from all quarters to the section. As soon as they are all arrived, a very general noise ensues, the business of the court is opened, and shortly after they all fall upon one or two individual crows (who are supposed to have been condemned by their peers) and put them to death. When the execution is over they quietly disperse.

ORULENT BEGGARS—A short time since a Detroit gentleman who works for a moderate salary, and rents one of a row of cottages owned by a moderately wealthy German, was told by his wife one evening that she had been called to the door by a little girl and boy who asked for food. In glowing terms she pictured the ragged, half-starved appearance of the children, their shoeless feet, cold, pinched features, and their profuse thanks at her donation of bread, cakes, and cold meat. Husband told his wife that she had done right in relieving their wants, and quoted: "It is more blessed to give than to receive." From time to time the wife spoke of her little protégés, of the food she gave them, and luxuries sent to their sick mother and her infant. This continued for some weeks, and although the tax upon his resources was somewhat onerous, the quotation given above was his solace, and he heroically curtailed his cigar bills without a murmur. Of late, however, he smokes more than ever before, for happening to go home one day at an unusual hour, he found his wife in the pantry filling a large market basket with provisions, while sitting by the stove in the kitchen were two children that he recognized as the property of his landlord. Beggars lose time by calling at that house, for they are told to "git," without any formality.

A too-honest clerk has been discovered by the Hamilton Times. A merchant of that city recently hired a new clerk, and of course initiated him at once into the mysteries of the "trade mark." The same afternoon the newly-inducted knight of the yard-stick was showing some goods to a lady customer, when she demurred to the price of the article. The feelings of the merchant may be imagined when the young man called at the top of his voice: "What shall I sell this for? It is marked four dollars and a half and cost fifty cents." The engagement with the clerk soon terminated.

A good story comes from Cambridge. It is said that when the Greek Archbishop of Syros and Tenos attended in the Senate House, for the purpose of receiving his honorary degree of LL.D., he dropped his pocket-handkerchief, and on stooping down to recover it, one of the graduates in the gallery exclaimed, "Hurrah for the Grecian bend!" The effect was, of course, so intensely ludicrous that the whole assemblage was convulsed with laughter.