

[Reported for the Scientific American.]

NOVA SCOTIA PATENT LAW.

SECTION 1. Whenever any person resident in the Province, and who shall have resided therein for the period of one year, or any British subject, who shall have been an inhabitant of Canada, New Brunswick, Prince Edward's Island, or Newfoundland, for the space of one year previous to his application, shall apply to the Governor, alleging that he has discovered any new and useful art, machine, manufacture, or composition of matter, or any new or useful improvement thereon not theretofore known or used, and pray that a patent may be granted to him for the same, the Governor may direct Letters Patent to be issued, reciting therein the allegations of such petition and giving a short description of such invention, and shall thereupon grant to the person so applying for the same, and his representatives, for a term not exceeding fourteen years, the exclusive right of making, using and vending the same to others, which Letters Patent shall be good and available to the grantee, and shall be recorded in the Secretary's office, in a book for that purpose, and shall then be delivered to the patentee.

SEC. 2. Where any Letters Patent shall be obtained by any person for any such invention, and thereafter any other person shall discover any improvement in the principle or process of any such invention, and shall obtain Letters Patent for the exclusive right of such improvement, the person who shall obtain such new patent shall not make, use, or vend the original invention, nor shall the original patentee make, use, or vend any such improvement.

SEC. 3. The simple change of form or proportions of any machine or composition of matter shall not be deemed a discovery or improvement within the meaning of this chapter.

SEC. 4. Persons applying for Letters Patent, on delivering in their petition, shall pay into the Secretary's office twenty shillings, to be applied as other fees payable therein.

SEC. 5. Any person may receive from the Secretary's office any copy of such Letters Patent, or of the petition whereon the same were granted, or of any paper or drawing connected therewith, on paying sixpence a folio, and a reasonable fee for every copy of such drawing.

SEC. 6. Before any person shall obtain any Letters Patent, he shall make oath in writing that he verily believes that he is the true inventor or discoverer of the art, machine, or composition of matter, or improvement, for which he solicits Letters Patent, and that such invention or discovery has not been known in this Province or any other country; which oath shall be delivered in with the petition for such Letters Patent.

SEC. 7. The affidavit may be sworn by the person making such application before any judge of the Province or colony in which such person shall reside.

SEC. 8. Before any person shall obtain any Letters Patent he shall deliver into the Secretary's office an intelligible and exact description of such invention, and of the manner of using, or process of compounding the same, so as to enable any person skilled in the science of which it is a branch, to make and use the same; and, in case of any machine, shall deliver a model, and explain the principle by which it may be distinguished from other inventions, and shall accompany the whole with drawings and written references where the case admits of drawings, or with specimens of the ingredients sufficient for the purpose of experiment where the invention is a composition of matter, which description, signed by such person and attested by two witnesses shall be filed in the Secretary's office, and copies thereof, certified by the Provincial Secretary, shall be competent evidence in all courts where matters concerning such Letters Patent may come in question; but the Governor may, upon special grounds being shown, dispense with the delivery of the model at the Secretary's office if he shall deem it right to do so.

SEC. 9. Any patentee may assign all his right in such invention and discovery to any person; and the assignee thereof, having recorded such assignment in the Secretary's Office, shall stand in the stead of the original patentee as well as regards his rights as all his liabilities; and the assignee of such assignee shall also be considered to be in the stead of the original patentee.

SEC. 10. Whenever any Letters Patent shall be granted to any person, and any other person, without the consent of the patentee or his representatives first had in writing, shall make, use, or sell the invention or discovery whereof the exclusive right is secured to such patentee, the person so offending shall be answerable to him or his representatives in damages.

SEC. 11. The defendant in any such action may give this chapter and every special matter in evidence to prove that the specification filed by the patentee does not contain the whole truth relative to the invention or discovery alleged to have been made by him, or contains more than is necessary to produce the desired effect, which concealment or addition shall fully appear to have been fraudulently made, or that the invention or discovery so secured by Letters Patent was not discovered by the original patentee, but has been in use or has been described in some published work anterior to the supposed invention, or discovery of such patentee, or that such patentee has surreptitiously obtained such Letters Patent for the invention or discovery of some other person, in either of which cases, upon proof thereof, the verdict shall be found and judgment entered thereon for the defendant with costs, and such Letters Patent, by the court, shall thereupon be adjudged void.

A true copy from the statutes. ROBERT STUBS.
Notary Public and Patent Agent.

Night Telegraph Army Signals.

MESSRS. EDITORS:—My attention has been directed to Mr. Tuttle's letter in regard to a system of night signals based on short and long flashes of light, thereby imitating the dot and line alphabet of Morse.

The idea is not new, as I applied the same system during the winter of 1844, by means of two parabolic reflector lamps, the short and long flashes being made with a movable slide or screen, worked with a lever, for telegraphic purposes. The experiments were made in Baltimore, in presence of several gentlemen, during my superintendence of the government experimental telegraph office in that city, under the direction of Professor Morse, the Superintendent of United States telegraph lines. All of the experiments proved satisfactory, at that time, but the mode of signaling was objected to by masters of merchant vessels, as well as by navy officers, from the fact that trained operators would be required, and therefore the system could not be generally introduced.

About this time, (1844,) I proposed to Lieut. (now Captain) Ringgold, U. S. N., to apply the short and long flashes of light to telegraph, by means of the electric light. This was also objected to for the same reason.

At a subsequent period, in 1847, Mr. B. F. Coston, Superintendent of the Naval Laboratory at Washington, prepared a system of night signals composed of brilliant fires, which I considered better adapted to the purpose.

My object in addressing this note is to claim the invention, reserving the right to offer it to the government or to patent it hereafter. At present, however, I must say, in justice to Mrs. Coston, the widow of the late B. F. Coston, U. S. N., that the signal lights, recently furnished the Navy Department, under the patent granted for Mr. Coston's invention, surpass all I have seen in the United States or in Europe, and therefore that lady's invention is well worthy of the patronage of the government.

HENRY J. ROGERS,
Telegraphic Engineer.

[Our correspondent could not now secure a valid patent for this discovery, as it is manifest that he has abandoned it to the public. Inventors ought never to delay making application for their patents in this manner—they are sure to regret it. Almost any invention is worth the cost of a patent.—Ems.]

THE largest dredging steamboat in the world has lately been built in Glasgow, for the purpose of deepening the Tyne river in England. It is 149 feet in length, 38 in breadth, and 11 in depth. It has a single beam engine of 60 horse-power. It is 700 tons burden, and cost about \$100,000. It has arrived at its destination and by this time is raising the mud from the bed of the Tyne.

TRIAL TRIP OF THE STEAMER "SHANTUNG."

The engineers' trial trip of the new steamer *Shantung* came off on Monday, the 8th inst., and was very successful. This vessel is the property of Augustine Heard & Co., of Boston and China, and is designed for the special use of the owners in China. The hull was built by Thomas Collyer, of this city, and is of the following dimensions:—Length, 151 feet; breadth of beam, 26½ feet; depth, 9½ feet. She is strongly built, and is diagonally braced with iron strips. Her hold has a capacity for 225 tons of cargo; and her cabin is constructed to accommodate her officers and a moderate number of passengers. It is fitted up with great taste, and every convenience. The quarters for the sailors and firemen are in the extreme forward end, and are very comfortable and well ventilated. She has two masts, and is half-rigged, with yards on the foremast. The engine of the *Shantung* was built at the Neptune Works, Eighth-street, E. R., this city. The diameter of the cylinder is 36 inches; stroke, 10 feet. The wheels are 22 feet in diameter. The engine is an overhead beam, similar to our river boat engines, and beautifully finished.

The model is beautiful, and the workmanship of the hull and machinery does credit to our nautical architects and engineers. We have no doubt but she will elicit the admiration of John Chinaman when she reaches the celestial kingdom. Her chief business will be the carrying of opium, and she will soon be ready to proceed upon her voyage to the Chinese seas.

She started from the foot of Eighth street—below the Neptune Works—at 9 A. M., proceeded out to the Light Ship, and returned, making an average speed of about 16 knots per hour. "The winds were fair, the sky was clear, no breeze came o'er the sea," and the steam engine did its duty well. There was a pleasant party of gentlemen guests aboard, invited by P. L. Everett, Esq., one of the proprietors of the vessel, and all things passed off pleasantly.

The New Gunboat Contracts.

The contracts for twenty-three new gunboats, of 500 tons burthen each, have been given out, and the work divided among a great number of establishments, so as to get it done as quickly as possible.

The hulls are given out as follows, one to each party, according to the information we have received: John J. Abraham, Baltimore, Md.; M. Thatcher, Wilmington, Del.; John Lynn, Jacob Birley and Hillman & Stracker, Philadelphia; Jacob Westervelt, John English, T. Stack, J. Simonson, E. & H. Pouillon and Webb & Bell, New York; E. & W. Goodspeed, East Haddam, Mass.; Marseen Fish & Co., Mystic, Conn.; Gildersleve & Sons, Boston; Paul Curtis, A. & G. Simpson, and Curtis & Tilden, Newburyport, Mass.; G. W. Jackson, Jr., Thomaston; G. W. Lawrence, Belfast; C. P. Carter, Portland; J. W. Dyer and Larabee & Allen, Bath, and N. N. Thompson, Kennebunk, Maine.

The contracts for the machinery are given out to the following firms: Charles Reeder, Baltimore, one; Chester Iron Works, Chester, Pa., one; Merrick & Co., Philadelphia, one; Morris & Co., do., two; Novelty Works, three, Allaire Works, two, Morgan Works, three, all of New York; Highland Iron Works, Newburgh, N. Y., one; Pacific Iron Works, Bridgeport, Conn., one; Woodruff & Beach, Hartford, one; Harrison Loring, two, Atlantic Works, one, Boston.

AUSTRALIAN GOLD MACHINERY.—A very large capital is now invested in gold mining in Australia. The number of miners engaged in obtaining gold is 107,572 of which there are 60,874 Europeans and 28,100 Chinese. There are 294 steam engines of the aggregate power of 4,137 horses; also 3,957 horse puddling machines, 354 horse gins, and 128 water wheels. These are all used in the alluvial workings. Beside these, there are used in the quartz mining and crushing 420 steam engines, equal to 6,696 horse-power, 6 water wheels, 40 horse crushers, and 184 horse gins. The aggregate ratio of the mining plant (machinery, &c.) is about \$6,000,000. The government is about to engage in the building of great reservoirs to store up rain water for the alluvial diggings. They have adopted a method nearly like the American Wykoff & Fell patent system of amalgamating gold in Australia.