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Management of the Patent Office.

The Patent Office is one of the most important departments connected with our government. It was organized for the purpose of promoting the progress of discovery and the useful arts, and to protect the peculiar rights of inventors, a class of men who have done more for the advancement of civilization, and the honor and greatness of our country, than all the political economists that have ever lived. The steam engine, the cotton gin, the spinning jenny, the power loom, the telegraph, the sewing machine, and all other useful inventions, are iron apostles of civilization; they convince without arguing, and subdue all opposition by the eloquence of action. The management of the Patent Office—administration of the laws which regulate the issue of patents—is therefore of great consequence, not only to inventors, but the whole people. The Commissioner of Patents, as the supreme head, should be acquainted with the laws of patents, a man of good judgment, of scientific ability, candor, and impartiality. The examiners should be men possessed of a thorough knowledge of the machinery and articles in their several departments, patient in investigation, industrious, sensible, generous, and impartial, so that no injustice should be done by them to any applicant for a patent. Good men, although liable to make mistakes (for none are perfect) are always willing to rectify the same when they are pointed out; while bad men, under the best laws, cannot be trusted in any capacity.

The present Commissioner of Patents—Judge Mason—has given evidence since he entered upon the duties of his office, of great ability and uprightness. He has changed the policy which was pursued by the Patent Office for a short time, and which we condemned on page 247, in reference to retaining all the fee for rejected applications on which caveats had been filed. According to the thirds of the fees on rejected applications will hereafter be returned on all withdrawals; and we have no doubt but every useful reform which Judge Mason in his wisdom deems necessary to the good administration of the Patent Office affairs, will be carried out at the proper time and in the proper manner.

At the present time the Patent Office is far behind, at least six months, in the examination of applications. This is very trying to the patience of inventors, and sometimes injurious to their best interests. The business of the Patent Office should always be in such a state that no application should be longer than one month in the office before it is examined. When men in any office are crowded with business, their work is oftentimes but very superficially performed. At the present moment the examining corps of the Patent Office, although very diligent, are not strong enough in numbers to perform their incumbent duties so promptly and thoroughly as they should be fulfilled. Examiners have sometimes had much extra labor, unpleasant and extended correspondence, owing to hasty adverse decisions. An applicant for a patent should always have the benefit of a doubt in the mind of an examiner, for a trial at law, after all, is the only real binding cord of legality.

We hope that during the next session of Congress, an addition will be made by law to the examining corps, so as to render every department complete and effective. The present Commissioner will then have been in office to see and know exactly what is wanted, and will be the most proper person to institute and recommend such measures as will make the Patent Office the best managed of any in connection with our government.

To Correspondents.

No matter what your communications treat upon, we require you to furnish us with your proper name and residence in full, or no notice whatever will be taken of them. We have repeated this statement frequently, and still receive anonymous letters. They are destroyed as soon as received.

Patent Agents—A Caution.

It is well known to many of our readers that there are located in the City of Washington a vast horde of self-styled "solicitors," who profess to undertake all kinds of professional business before the different departments of the Federal Government. This class of solicitors are for the most part shipwrecked politicians, who hang about the corridors of the public buildings, something after the style of the "Peter Funks" of this city,—ready, with the most obsequious politeness, to undertake all kinds of jobs, and for very small fees. Of course, having once, perchance either by implication or in fact, been the suckers of government pappage, they are supposed to understand the "ropes," and of course have more influence in the proper direction than any other class of men.

The apparent success of these professional gentlemen has had its influence upon many uninitiated into the mysteries of "official life," and as a consequence growing out of it, Washington has become a sort of Mecca for young men thirsting for renown and money, who imagine that they are there easily attainable and flow directly from the large annual appropriations made by Congress.

The class of men we are now considering have really nothing but windy pretensions, which they display in long and tolerably ingenious circulars of information to the public. It is quite notorious that worth and respectability in professional life suffer in character and business on account of these false pretenders. This is naked truth, and is apparent to all familiar with the peculiarities of Washington.

There are also located near the Patent Office a class of men known as Patent Agents; we are acquainted with several of the highest respectability, who are justly entitled to public confidence, yet, after all, they suffer in their business and reputation by pretenders who back their claims by professional circulars of "wondrous length and thundering sound," addressed to inventors and patentees, promising the most brilliant results.

We feel called upon, as an act of justice to ourselves and other respectable Agents, to caution inventors and patentees against such characters,—they are unreliable, and like sharks, feed upon humanity, whose vitals they search after, not only in the streets and public buildings of Washington, but throughout the whole country. This nuisance became so intolerable during the administration of Mr. Burke, that he was compelled, to save the Patent Office from the disgrace of this besieging army, to post circulars of warning along the walls of the Office. This checked their operations somewhat, so far as the Patent Office was concerned, and their theatre of operation then extended to the country, so that now almost every issue of the Scientific American brings to us letters of inquiry—illegitimate fruit—in reference to some Agents who pretend a desire to purchase rights in an invention, perhaps not patented, and who accompany the request by enclosing a professional card, so obscure in its meaning as to lead some of our clients into the belief that they are our Washington Agents. These men derive their information about inventions and patents from notices in the columns of the Scientific American, and to some inventors they are no better than horse leeches.

We wish our own clients distinctly to understand that we are our own Agents, and act perfectly independent of any support in or around Washington. The horde of Agents who thrust their pretensions upon inventors and patentees, have infinitely more profession than real merit, and cannot, as a general thing, be relied upon; they are also vastly increasing, and now swarm like the locusts of Egypt,—the public must either steer clear of them or suffer themselves to be stung.

Without wishing to create a false impression in regard to worthy Patent Agents near the Patent Office, we will state, that whenever any of our readers wish to employ reliable agents in Washington to transact any business with the Patent Office, we will, upon application, furnish them with the names of responsible men. We have very reluctantly thrust this subject into our columns. We have done it to caution the public against those who have no merits of their own, but

endeavor to build themselves up at the expense of reliable and able men, and much to the cost of their clients.

Low Pressure Engines on the Western Waters.

We understand that a low pressure steamboat named the "Jacob Strader," has been recently built for the Cincinnati and Louisville Mail Co., to run on the Ohio river. All the steamboats running on the Western Waters are driven by high pressure engines, but this boat is not the first low pressure that has been tried on the Ohio or Mississippi. Excellent low pressure steamboats have been faithfully tried on the Mississippi, but failed to work well in such muddy waters excepting for a short time, and hence they were abandoned. At the present moment there are 1,205 steamboats in the United States, and out of that number there are only 362 with low pressure engines—all the rest being high pressure; the latter are nearly all employed on the Western rivers; Pittsburg has 101 high pressure boats; Cincinnati 104, St. Louis 126, New Orleans 111 and Buffalo in New York has 34—the rest being owned in various other cities South and West, and a number on the north-western lakes. The great number of steamboat accidents in our country caused by the explosion of steam boilers, is to be attributed to the great number of high pressure engines employed. It has long been a desideratum to obviate the dangers of explosions, and there can be no doubt that if the proportion of our high pressure to those of our low pressure steamboats were reversed, the number of boiler explosions would decrease exactly in the same ratio. On the Ohio river, where there are so many high pressure boats, the extra weight of the machinery for low pressure boats has always been a great obstacle in the way of low pressure boats on that river, owing to the very low state of the water during the dry period of the year. As no effort hitherto made to introduce low pressure boats on the Western waters, has proved successful—every one being a practical failure—we cannot place much confidence in any new effort: not, at least, until it has had a fair trial for some time. Some have supposed that the incrustations formed on the boilers of our Western boats contained considerable of the chlorate of potash, and that when the boiler flues, by neglect or otherwise became red-hot, this substance exploded and tore the boiler to fragments. Others believe that all the explosions on the Western boats are attributable to over-pressure of steam, and look upon the incrustation theory as a chimerical one.

Were it possible, however, to prevent scale in the boilers of our Western steamboats, by the use of pure feed water, and at the same time use condensers, grand and useful results would be obtained. Is it not possible that a good surface condenser may yet accomplish these two objects? What has become of the information which should have been spread before the people more than a year ago on the subject of steam engines, condensers, boilers, &c., by a Committee appointed by the Secretary of the Navy, which took nearly two years to collect information. It appears to us that after so much labor and money spent, the people should know whether the members of the Committee performed their duties in a proper and masterly manner, or whether they neglected to do so. We hope that low-pressure condensing steamboats will yet be rendered practicable on our Western waters, for they are by far the most comfortable in every sense for passengers, and besides, they are more safe, with respect to life, and more economical with regard to fuel.

Ericsson on the "Ericsson."

In the last number of "Appleton's Mechanics' Magazine," there is an article from Capt. Ericsson on his Hot Air Engines. From the exciting advertisements published about this article, as being something wonderfully great, we thought before we read it, that some acute and able reasoning, worthy of an answer, would be presented. But instead of this we have been disappointed. We advise every reflecting practical engineer to read it for himself, to be convinced; that it is nothing but a batch of nonsense. We quote the following extract:—

"I have repeatedly stated that the yielding of the wrought-iron heaters has prevented

full pressure being carried, and I have so reported to Government. Strange to say, those who have written on the subject appear not to comprehend the importance of this fact, nor its true bearing on the question. They all confound the caloric engine with the steam engine. In the latter, when reduced pressure is carried, the consumption of fuel is reduced in an equal proportion—not so in the caloric engine. The principal source of heat being the regenerator, neither speed nor pressure exercises any material influence on the quantity of fuel consumed. I must here emphatically record the fact, that the quantity of fuel consumed in turning the wheels at the dock, at 4½ turns per minute, differed very little from the quantity consumed under way, making 9 turns a minute. The reason is obvious; the losses by radiation, and the heat passed off through the chimney, &c., remain constant, whilst the capability of the regenerator changes with the speed, density of air, and temperature. By increasing these the power of the instrument increases in equal proportion; the more heat it receives in a given time, the more it gives back."

Capt. Ericsson has also stated that his wrought iron heaters would not yield. Those who have written on their yielding have comprehended the difficulties, if not the importance of the same, and the owners of the Ericsson now feel it. It is not true that the hot air engine (caloric engine is a wrong name) has been confounded with the steam engine, and it is not true that reduced pressure in a steam engine reduces the consumption of fuel. If he had said that high pressure steam used expansively, reduced the quantity of fuel he would have been correct. If the regenerator is the principal source of heat, why in the name of common sense does he use any fuel at all. It seems that the fuel his engine consumes is a sequent of his regenerator, and by this logic it is not the heat produced by combustion which moves his engine, but his regenerator—some packages of wire gauze. The "regenerator" of the hot air engine is a humbug; it seems to humbug Capt. Ericsson and all the groundlings who believe that a certain quantity of heat can produce repeated effects upon innumerable quantities of matter—a perpetual motion idea of the most absurd character.

Propellers.

A number of fine steam propellers, of moderate tonnage, have lately appeared on our waters, and more are in progress of construction. A line of schooner-rigged propellers ply between this city and various places on Long Island Sound. They are well built and run very fast. A new line of propellers has been established to carry freight and run on the North River between New York and Albany. The first one of the line has been built at Newburgh. The boat is of large dimensions—160 feet keel; 29 feet 4 inches breadth of beam, 8 feet depth of hold. The machinery consists of two double cylinder engines, direct action, formed upon an improved principle, the invention of John Baird, of the Highland Iron Works. The piston of each cylinder is connected to the crank-wheel pin of the Propeller-shaft, directly under it. The condenser and air-pump are placed between the cylinders; the air-pump being horizontal and double acting, receiving its motion from a link attached to one of the slides. The engine is on the Wolte principle, but is new so far as regards the construction and arrangement of its parts.

Commissioners to the New York Crystal Palace.

On the 10th inst., the British ship Leander arrived at this port with the Earl of Ellesmere on board, as the chief appointed British Commissioner; Sir Charles Lyell arrived the week before at Boston; Prof. Wilson, Messrs. Dilke, Wallace, and Whitworth, other Commissioners have also arrived. The Earl is accompanied by his lady, the Countess of Ellesmere, his son and two daughters.

The Earl is altogether too fast for our Crystal Palace folks. We believe it is his intention, as the Crystal Palace is not yet ready to open, to proceed immediately to Niagara Falls, and thence to Canada, where he will remain until the middle of July.