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WHAT CAN BE DONE FOR INVENTORS.—ADVICE GRATIS AND ADVICE FOR PAY.

For the information of our new subscribers, we would state that it is the custom, at the office of this paper, to examine models or drawings and descriptions of alleged new inventions, and to give written or verbal advice as to their patentability, without charge. Persons having made what they consider improvements in any branch of machinery, and contemplate securing the same by Letters Patent, are advised to send a sketch or model of it to this office. An examination will be made and an answer returned by early mail. Through our Branch Office, located directly opposite the Patent Office in Washington, we are enabled to make special examinations into the novelty and patentability of inventions. By having the records of the Patent Office to search, and the models and drawings deposited therein to examine, we are enabled to give an inventor most reliable advice as to the probabilities of his obtaining a patent, and also as to the extent of the claim that it is expedient to set up when the papers for an application are prepared. For this special examination at the Patent Office we make a charge of Five Dollars. It is necessary that a model or drawing and a description of the invention should accompany the remittance.

The publishers of this paper have been engaged in procuring patents for the past sixteen years, during which time they have acted as Attorneys for more than FIFTEEN THOUSAND patentees. Nearly all the patents taken by American citizens in FOREIGN countries are procured through the agency of this office.

Pamphlets of instructions as to the best mode of obtaining patents in this and all foreign countries are furnished free on application.

For further particulars as to what can be done for inventors at this office, see advertisement on another page, or address

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ANNUAL REPORT OF THE COMMISSIONER OF PATENTS.

In another portion of our paper we publish the first Annual Report of the Hon. D. P. Holloway, Commissioner of Patents. It is a plain, unpretending document, devoid of any striking originality, either in style or ideas; still it presents many interesting and instructive statements.

It appears from this Report that, although the war has produced a marked falling-off in the number of applications for patents, still the inventive mind of the country has not been idle. Nor has the genius of inventors been so exclusively employed in the development of war implements as we might at first suppose. During the month of December, 1861, out of 420 new applications for patents, only 58 were for

purposes of warfare; all the rest were connected with the peaceful pursuits.

The Commissioner, in asking for further legislation in behalf of the Patent Office, very truly says:—"As the power to maintain war depends upon the productive labor of the country, and the capacity of production is increased by new inventions, it is hoped that Congress will regard the encouragement of an institution which stimulates and protects the inventive resources of the country as not simply a duty, but a national necessity."

The Report recommends a change in that portion of the law which allows an applicant for a patent to pay in \$15 on account of the fee, and the balance (\$20) after the Office decides to grant a patent. The practical operation of this method is to cause a suspension and postponement of the issue of hundreds of patents; thus producing a pecuniary inconvenience at the Patent Office, as well as increasing the liability to confusion and controversy between allowed pending cases and new applications. The Commissioner suggests a return to the old method, which required a payment of the full fee at the time of making the application, with a right to withdraw a part of the amount in the event of a rejection. Although there are difficulties connected with the practical operation of the law as it now stands, still we think that they are no greater than those which attended the old rule of withdrawals. One thing is certain: the present law tends to increase the number of applications for patents, because the fee required on making an application is so low—only \$15; and thus the general object of all patent laws is secured, namely, "the encouragement of new and useful inventions," which, as the Commissioner says, "is a national necessity." We do not believe that the interests of the country or of inventors will be promoted by a return to the old system of withdrawals; and we think that it is better to let the present law alone, even though the Patent Office is subjected to some inconvenience. If any change must be made, let there be a limit of time fixed within which the applicant must complete his payments.

The Commissioner states that the printing of the patents, as provided by law, has been suspended for want of funds, and he asks an appropriation from Congress to continue the work. He says that, for a less amount than that heretofore expended for the printing of the usual illustrated Reports, a limited number of copies of each patent, with drawings in full, might be printed. He recommends that a type-printing concern and photographic establishment be attached to the Patent Office, to accomplish the above objects, the drawings to be all made by photography. We would suggest that the types be dispensed with, and the whole work done by the photograph. We have seen some copies of written patents, made in this manner, which equaled in legibility the best of printing, and in appearance were far neater than the Commissioner's printed parchment specifications.

The Report recommends a change of that part of the law which requires the oath to be renewed, after rejection. The rights of assignees are at present invaded by the absence or refusal of inventors to renew the oath, and much inconvenience and delay are involved. We fully concur with the Commissioner in the belief that no good, but only evil, results from the oath-renewal.

The Commissioner also asks for a reform of the law relating to appeals. As the law stands, no appeal can be taken from the Examiner to the Commissioner until the case has been acted upon by the Board of Examiners-in-Chief. Thus the Commissioner, although nominally the chief of the Patent Office, is in reality deprived of all voice, in certain cases, until a long string of "red-tape-ism" has been run through; and even then he cannot interfere unless the applicant pays him a fee greater than that required on making the original application. Clearly, the law should be amended, as the Commissioner asks.

The Commissioner speaks of various changes made by him in the position of Examiners, by which some have been reduced to the rank of Clerks and Second-Assistants, in order to cut down their salaries but still get the actual service of Examiners out of them. We do not see any thing to admire in this system; nor do we believe that it has been impartially exercised, or that it has resulted in economy to the Patent Office. Its fruit has been, so far as we have observed,

to discourage some of the best and most faithful of the Examiners, while others, of less experience, ability and effective industry have, by "favoritism," been unduly promoted; still others have been retained in office who have long been regarded as unfit for their duties.

SPLENDID SUCCESS OF THE ERICSSON BATTERY.

In other parts of our paper will be found an illustrated description of the Ericsson battery, and a graphic account of her fight with the *Merrimac*. While the iron-plated *Merrimac* was carrying destruction among the old wooden vessels of our navy, and spreading consternation throughout the land, the little *Monitor* with her two guns arrived upon the scene of conflict, and soon changed disaster and defeat into the most triumphant victory. For several hours she was sailing around the *Merrimac*, sending her shot into any selected part of her antagonist with perfect precision, sustaining an unprecedented cannonade with absolute impunity, and finally succeeded in driving her formidable foe disabled away from the field of battle.

All circumstances combined to render this triumph one of the most perfect that has ever been achieved. Had the *Monitor* arrived at Hampton Roads one day earlier the *Merrimac* would not have had the opportunity of displaying her tremendous powers of destruction, and though the nation would have been exultant, the exultation would not have experienced that vigorous rebound which follows the serious apprehension of disgraceful disaster.

It was stipulated in the contract for the *Monitor* that she should be tried under the guns of the enemy before being accepted by the department, but it could not have been anticipated that she would be subjected to so severe a trial as that which she has endured, and that she would thus be able to so fully establish her invulnerability.

In all the numerous and costly experiments that have been made in England with armor plates, with Armstrong, Whitworth and other guns, the most destructive projectile yet tried has been spherical shot fired from a 68-pounder cast-iron gun. Spherical shot receive a higher initial velocity than elongated projectiles in consequence of the pressure of the gas being exerted against a larger area in proportion to the weight; but this velocity is more rapidly reduced from the greater resistance of the air in proportion to the *vis viva*. Now the 11-inch guns of the *Merrimac* carry balls weighing 184 pounds—nearly three times heavier than the most destructive shot ever tried against iron plates in England. These shot were fired at exceedingly short range—some of them said to be at only forty feet distance—and nine struck the turret of the *Monitor* without inflicting the slightest injury.

This contest was the most severe test to which armor plates have ever been subjected, and it puts the final seal to the fate of all wooden ships of war. Calling upon Capt. Ericsson the day after the fight to congratulate him upon the brilliant success, we found him engaged upon the drawings of a large sea-going steamer, after the plan of his battery, with the proper modifications for that class of vessel.

IMBECILITY IN THE NAVY DEPARTMENT.

The practical intelligence of the country has suffered an outrage, by the imbecility of the naval authorities. The press for a year past has strenuously urged upon the government, the importance of building iron-clad gunboats. Their better judgment in this matter has not been regarded, and the result is millions of dollars have been expended upon wooden ships, which are worthless against an iron-plated gunboat of the most ordinary character. The *Merrimac* destroyed two wooden frigates, disabled two wooden gunboats, recently built, and would have destroyed the splendid wooden steam frigate *Minnesota* but for the timely arrival of the little two-gun iron-clad *Monitor*. The whole naval management at Fortress Monroe appears to have been a splendid piece of stupidity, and the Navy Department is, no doubt, in the hands of those who are too much wedded to old notions. It appears plain to us that there has been a want of efficiency in this department, which may yet cost the country additional disgrace. We hope the President will not allow personal influences to override the interests of the whole people.