# Scientific American.

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The Report of the Commissioner of Patents for the past year—on another page—is an able and interesting document. A very prominent feature of it relates to the self-supporting character of the Patent Office. This great Institution is sustained by no general tax, levied either directly or indirectly upon the people; its whole revenue of \$192,588 is derived from inventors, and persons interested in patents. Such an Institution should receive the fostering care of government, and those who support it should always be treated with courtesy and consideration, especially when we take into account that, with their contributions to the revenue of the Patent Office, they have added more to the material wealth and power of our country than any other class or men.

Another striking feature of the Report is the increased number of patents which have been issued in proportion to the number of applications. This confirms the justness of the complaint we have oftentimes made viz., that many applications for patents have been unjustly and unreasonably rejected. The Commissioner attributes the improvement made in such decisions to "the progress made both in and out of the Office in the knowledge of the proper principles and rules in accordance with which patents should be granted or refused." This is no doubt true in a measure, but he does not take to himself that credit which he deserves for the infusion of a better spirit in the rulings of the Patent Office. It makes no matter how well the principles and rules with which patents should be granted or refused, may be understood-in and out of the Patent Office—disagreements between applicants and Examiners will occur, according to he present constitution of the Office. The position which Examiners now occupy towards applicants for patents, is a great legal anomoly. They are constituted, or constitute themselves, judges, counsel, witnesses, and jury, in acting upon cases; and according to the spirit which prevails, they stand like opposing counsel to the claims of applicants, not as just judges awarding them their rights. The Commissioner sees this defect in the working of our present patent system, and we are happy to say, he suggests a changean improvement. He says, in reference to the action of Examiners, "Such examinations are, doubtless, productive of much good, but, at the same time, I think it by no means certain, that this portion of our efficient action is placed upon the correct footing. I am every year yielding more and more to the conviction, that the decisions of the Office should not be peremptory, but merely ad-visory."

We agree with these sentiments. With a law providing for a writ of scire facias, as recommended in another part of the Report, the duty of Examiners should be merely advisory, and may well be left thus circumscribed.

An increase of patent fees is requested to provide for the increasing expenses of the Patent Office. The French and English methods of paying fees by instalments-several years apart-is suggested as a good means of augmenting the funds, and allowing unprofitable patents but a short existence. We have no special objections to urge against such a system, except its complexity. We decidedly object, however, to any great increase of patent fees, and the Report furnishes us with a strong argument in favor of low fees. It informs us that more American than English patents are now issued, and more patent app'ications are made than in France. Why is this? One overwhelming reason lies in the fact that our patent fees are lower than those of England and France. The greater the facilities which are provided for obtaining patents, and the lower the fees that are charged for them, so, in proportion, is inventive genius stimulated. The benefits derived by our country from such encouragement given to our inventors-and at no cost to the govern-

facture of many kinds of machinery and implements, our countrymen are now unrivalled, andthey excel just in those machines and implements for which the greatest number of patents have been obtained. Had our patent fees been as high as those of England and France, many of our most ingenious inventors would not have been able to obtain patents, and, as a consequence, they would have kept their inventions private, and our country would thus have lost the benefit of them. Great caution must therefore be exercised in increasing our patent fees.

The abolition of our law of caveat is suggested, and the English method of six months for enrollment of the specification-after the patent is granted—is suggested as a substitute. The reasons given for recommending such a change are, beyond all question, sound and good. As a whole, the Report is an excellent one. It is not a mere bald statement of what the Patent Office did last year, but it is a document, every section of which suggests new matter for reflection to every person interested in inventions and the progress of the useful arts in our country.

### New Commissioner of Patents.

It is well known to our constant readers that Judge Mason, the present incumbent of the responsible office of Commissioner of Patents, holds the office with considerable reluctance, and, without doubt, devotes himself to its duties at a considerable pecuniary sacrifice. It is a subject of deep regret that the salary of this officer is not sufficiently remunerative to insure, beyond a doubt, the continued services of an arbiter so universally popular.

Since the signature of General Jackson was affixed, on that auspicious anniversary, the 4th of July, 1836, to the act creating the Office, and giving form to the code under which the industrial resources of our fertile country are becoming so rapidly developed—since the Secretaries of State, of War, and the like, were relieved by that act from what must always prove to general State officers annoying and troublesome to inventors, the office of Commissioner of Patents has never been filled with such credit as during the few years since the appointment of Judge Mason. His legal talent have been especially of great importance in this situation, as they have rendered plain and easy to him many complex questions which would otherwise have seriously disturbed his usefulness, while the courtesy and zeal with which he has prosecuted the investigation of every question have been not less worthy of remark. We sincerely hope he will not resign, and we have no idea that Mr. Buchanan will desire his removal.

Various rumors are afloat with regard to supplying the vacancy should one occur, but we are aware of no public movements in behalf of any one, except for Col. J. Franklin Reigart, of Lancaster, Pa. Col. R. has had much experience in connection with inventions, in various ways, and is well known to our readers as the author of a valuable life of Robert Fulton, and is a gentleman, we feel assured, from a long personal acquaintance, who would administer the affairs of the Office in a practical and importial manner.

Movements in favor of Col. Reigart have appeared in several quarters. The most marked has been a meeting of inventors, (called, we think, without public notice, however,) at the Astor House, in this city, on the 10th inst. where a series of resolutions were passed, alluding very complimentarily to the merits of the book, and recommending him to the office. We feel tolerably well assured that whether Col. Reigart receives the appointment to the chief office or not, his services will in some form be required at the Patent Office under the forthcoming administration.

## Magnetic Communication for Individual

The Electro-Magnetic Telegraph, first established in 1844, a period within the memory even of the youngest of our readers, is becoming more and more an essential feature of civilized society. Its network covers a great portion of America and Europe, and even | stretches through the jungles of India. It

ment—is beyond calculation. In the manu- small but important island of Nantucket, and traverses the St. Lawrence Gulf to communicate with Newfoundland. It connects Great Britain with Ireland, and again both these islands with the continent of Europe by several independent lines. It crosses the various straits and belts at the entrance to the Baltic, to take hold on Sweden and Norway, and dives under the Mediterranean to communicate with the dark continent of Africa. And having successfully threaded depths of 150 fathoms, and lengths of 600 miles; it bravely attempts at one bold stride to stretch 2600 miles under depths of two and a half miles in the mid Atlantic. It has accomplished miracles, and we have yet to see the end of its developement, both in enterprises which challenge admiration by their magnificence, and in the more ordinary and apparently trivial business operations.

> Messrs. Hoe & Co., the printing press and saw manufacturers of this city, employ a line to connect their up-town with their Gold street establishments; and the New York and Erie, and some portions of what is now the New York Central, are early examples of its availability in railroad business, but we have recently learned a new use of this insiduous and active agent, which may interest parties in all quarters whose reputation is discussed through its agency, and may suggest other applications equally novel and ingenious.

A very extensive trade with parties distant and almost unknown, has originated in this city several "Agencies," who are well paid by traders and other business men, to keep posted on their books the reputation and standing of every storekeeper and manufacturer in the country. How they learn it is a secret, and not essential to this article, but that they do perform this service with great effect is now so obvious that similar concerns, employing in the same manner large retinues of clerks and sub-agents, are being established in the great commercial cities of Europe. One heavy wholesale house in this city, has now added an improvement by putting up wires and establishing a direct telegraphic communication with one of these Commercial Agencies." Every new customer presenting himself is duly endorsed by a favorable report through this medium before a sale is completed. It has required considerable time, heretofore, to send a clerk in person, but on the improved system, while one partner is showing off the silks and shoddymixed broadcloths under a skylight, (so as to increase the gloss of their surfaces as much as possible,) the other retires, clicks a few strokes, and learns-" owns farm worth \$8000 clear, failed once five years ago, good-," and returns to assist in bowing and assuring the stranger that he can have the goods on any terms he chooses. This is, we believe, a new use for lightning, and one which must affect its reputation for politeness and general efficiency, as it certainly has facilities for saying the most pointed truths in a very smooth way.

## Cultivated Mechanics.

"The Operative Mechanic is the steam engine of the world, and when his mind is stored with the truths of science, and the general information which he can readily acquire, from study, in his leisure hours, he is entitled to a place in the highest ranks of society. An intelligent practical mechanic, having a mind well stored with a knowledge of the arts and iences, and the power to converse readily upon general subjects, can take the highest stand among the proudest of men. He in variably becomes a man of character in the mmunity, and is capable of securing a position in the world that mercantile, professional, and speculative men seldom attain Educated mechanics shine in public life, and particularly in legislative bodies, much more brilliantly than mere book scholars, whose ideas of practical life are purely theoretical."

We copy the above from an exchange, and agree with every part of it, except the last entence. It should have read "Educated mechanics can shine in public life," &c. But few mechanics rise to what is called distinction in public life—that is, as politicians; but we place very little value on this distinction, nowa-days. The mechanic who does his work dives under the Atlantic to take hold on the well, who is honest and intelligent,, and, as are hard at work, all on Russian account."

a natural consequence, progressive, always

Errors of the Press

On page 171, appended to the article on Tea, it is stated that 40,244,000 tuns of tea were shipped to the United States during 1856 it should have read lbs. instead of tuns. This typographical error was a weighty, but not a dangerous error. None of our readersabounding as they do in that charity for the failings of humanity to which we confess with all fellow mortals-would suppose that we meant to charge each man, woman, and child in our country with using up nearly two tuns of tea per annum. Inveterate as some of our tea-drinkers are, we have enough of charity not to charge the worst of them with drinking more than a pound per week. If the greatest tea-drinker in our country considers this figure too high, we will cheerfully cut it down to the T square standard, upon proper information received on the subject.

Errors presented in our columns give us unpleasant, and often painful feelings, because we take pains, and have strong desires to see everything correct, and in proper place; but with the greatest care that can be exercised errors do occur, and unintentional though they be, we regret them—but "to err is human."

In connection with this subject the following anecdote is not inappropriate :-

"A Glasgow publishing house attempted to publish a work that should be a perfect specimen of typographical accuracy. After having been carefully read by six experienced proof-readers, it was posted up in the hall of the University, and a reward of £50 offered to any one who should detect an error. Each page remained two weeks in this place; and vet, when the work was issued, several errors were discovered, one of which was in the first line of the first page."

When such was the case in a city long celebrated in Great Britain for publishing the finest and most correct editions of the classics, what is to be expected in a newspaper which must necessarily be hurried through the press while it is news; and where the compensation will hardly afford one "experienced proofreader," let alone six. The wonted accuracy of our papers is really astonishing.

#### Exhibition of the Metropolitan Mechanics Society, Washington, D. C.

The Annual Exhibition of this Institution opens at Washington on the 2nd proximo, and promises to be a highly creditable affair. A large and substantial building of wood, several hundred feet in length, has been specially erected on Louisiana Avenue, and goods are now being received. The Exhibition will comprise new inventions, machinery, industrial manufactures, scientific and artistic productions, etc. The building is located in a very central and conspicuous part of the city. The Inauguration of the new President will bring thousands of strangers to the Capital, so that the attendance at the Exhibition will doubtless be large. Those who desire space should direct to Chas. F. Stansbury, Esq., Esq., Washington, D. C., who is the General

## Competition for Russian Work.

A report is abroad that Russia has awarded the palm to America for vessels, but decided that in machinery, and especially in the construction of marine steam engines, we are decidedly behind both England and France. This, if true, is calculated to rouse the spirit of that large and generally quite active class of mechanics in our country who are engaged in this department of engineering. Russia is now actively pushing forward a most magnificent system of internal improvements, in which America, to sustain her reputation, should be particularly prominent, but such does not seem to be the fact to so large an extent as we should have anticipated.

The London Engineer of January 30th remarks, that " for the last few weeks Russia has given very extensive orders to French houses for railway engines, tenders, and wagons [cars.] Machines for making sugar from beetroot, and a great quantity of distilling machines, have also been ordered. At MM. Derosne et Cail's establishment, the great engine makers in the Quai de Bille, 3000 men