

### FOREIGN PATENT LAWS. (Concluded from No. 15)

#### BAVARIA.

The Bavarian Government grants patents both of importation and invention, either to citizens or aliens, for from two to fifteen years, and may be prolonged at pleasure. A system which enables the patentee to throw up his patent at any time when he may deem it expedient to do so.

The changes depend much upon circumstances, but may be generally calculated at about \$7 per annum for the number of years for which a patent is taken.

The object of a patent must be new, and never before described in any printed publication.

Patents of addition for improvements are not granted, but new patents must in such case be taken out.

The patent must be set in activity within two years from its issue.

#### SAXONY.

The government of this country exercises its discretion in limiting the term for which a patent shall be granted.

The charge payable to government on the issue of a patent, usually ranges from \$4.80, to ten times that sum.

The subject of the patent must be new, and must not have been described in any printed publication.

Improvements on the patent originally granted may be secured by new patents only.

The subject of the patent must be put in operation in one year from the grant.

The patent must be granted *nominally* at least, to a resident.

#### WURTEMBERG.

The Wurtemberg government grants patents to all persons whether natives or foreigners; whether of importation or invention.

This government does not grant patents of importation for a longer term than 10 years; but the Legislature sometimes passes a special act for that purpose.

A patent may be procured for a term shorter than 10 years and afterwards prolonged.

The charge for a patent is payable by an annual instalment of from \$2.40 to \$9.60, or thereabouts.

The subject of the patent must be new and never have been divulged in any printed work.

Patents of addition are granted, and the object of the patent must be set in activity within two years from the grant and not neglected at any one time for the term of two years.

#### SARDINIA.

The Sardinian Government grants patents both of invention and importation to any application, for a term limited by its discretion, but usually fixed at 6, 8 or 10 years.

The charges are moderate, varying with circumstances.

A patent of addition, as such, cannot be obtained, and the government fixes the period within which the object of the patent must be set in operation.

#### THE ROMAN STATES.

The Patent Laws of the Roman States are well considered and liberal.

The Roman government grants patents of invention and importation to applicants whether natives or aliens, for from five to fifteen years, if the subjects of them have been already patented in the countries whence they are imported, but if the subject of the privilege solicited has not been patented elsewhere the Roman Government will issue a patent for five years only.

The tax is ten Roman crowns a year, or about \$27, for patents of invention, and fifteen Roman crowns, or about \$15 13, for patents of importation.

No patent of addition will be granted in this country, so that if an improvement be made on the original, a new patent must be demanded.

A patent right must be put in activity within 12 months of the grant, and may not be suspended at any time for 12 months.

The term for which the patent is issued is sometimes prolonged.

If no opposition to the patent be made in 6 months of the grant, none can be afterwards admitted on the ground of want of novelty, or priority of claim.

#### SPAIN.

The Government of Spain issues patents of

invention for 5, 10 or 15 years, at the desire of the petitioner, and patents of importation for 5 years

A patent originally granted for 5 years may be prolonged to 10 years, if sufficient cause be shown; but if the original patent were granted for 10 years it cannot be prolonged.

Patents are granted either to foreigners or natives.

The government charges for patents of invention in Spain, are:—For 5 years 1000 reals or about \$50. For 10 years 3000 reals or about \$150. For 15 years 6000 reals or about \$300

For patents of importation in Spain the charges are 3000 reals for a patent of 5 years only.

The law is silent respecting patents of addition for improvements.

A patent in Spain must be put in activity within a year and a day from the day of its date, and its operation must not be suspended at any one time for a year and a day on penalty of its forfeiture.

#### PORTUGAL.

The Portuguese government grants patents of invention both to citizens and foreigners, from 1 to 15 years, at the option of the applicant.

To patentees who may have previously obtained patents in a foreign country a patent may be granted only for such term as shall make up 15 years.

The amount to be paid for a patent is about 3200 rees or \$4.56 per annum.

The charge being so slight, in case of improvement upon the subject of the patent, new patents are usually taken out and not patents of addition.

A patent must be set in activity within the first half year of its term, and the terms of patents cannot be prolonged.

#### SWEDEN.

The Swedish government grants patents of 15 years for inventions; and for an improvement on an invention, patents of 10 years; but it grants patents of importation for five years only. The term last mentioned however may for sufficient cause be extended.

Although the Swedish government issues patents in the first instance without regard to the nationality of applicants, yet if they be foreigners it will be necessary within twelve months from the issuing of the patent, to appoint some respectable resident, in whose name it may be placed.

The Swedish government makes no charge for the issue of the patent, but requires the publication of the specification in the Government papers at full length, three different times within 60 days from the grant of the patent.

The object of the patent must be new, and must not have been published in any printed work previous to the delivery of the patent.

A patent of addition is in all respects subject to the same formalities as those prescribed for original patents.

Within two years from the date of the patent, the patentee must prove to the satisfaction of the College of Commerce, that the object of his patent is in activity. This period is for good cause sometimes extended. After the expiration of the term limited for putting the patent in activity, the proof to which reference is made above must be furnished to the College annually.

If within 6 months from the date of the third publication of the specification no person opposes the patent, it is established, and no later opposition will succeed.

It must not be overlooked in examining the Patent Laws of the Governments united under the Zollverein, that the laws have been in some respects modified by the Articles of that Association, and especially by the following provision:—A patent will not authorise

1. The importing of objects similar to those for which the patent has been granted.

2. The restriction of the sale of the same.

3. Or of the use of similar objects not bought of the patentee; but there will be an exception in favor of machines, mechanism, or instruments and manufactures.

The above valuable digest of foreign Patent Laws, was arranged for the Scientific American by Francis O. Lorr Esq., Wall st., New York.

#### For the Scientific American Exiles in Siberia.

The exile from Poland to Siberia of a great number of Poles of all ranks has caused during the last few years, much notice to be taken of the Russian New South Wales; and as usual, with much truth, the public voice has mingled not a little of mere fable. We borrow some facts from Kotzebuc and other eminent writers calculated to give a somewhat just notice of what Siberia really is.

It is generally supposed that slavery and suffering are inflicted alike on all who are sent to Siberia; but save the evil inherent, in and inseparable from compelled expatriation, many of the exiles are in no worse position than if at home in their own land.

This class of exiles consist for the most part of individuals of the higher order, condemned for political offences not sufficiently heinous to merit capital punishment, but sufficiently so to render their exile necessary to the peace of their country. No oppressive or infamous punishment is inflicted upon exiles of this class. A residence is assigned them; and while those who have property of their own are allowed to enjoy it in peace, those who have none receive a small but sufficient pecuniary allowance from the Government. Exiles of this class if nobles, are not even deprived of their rank.

The terrible sufferings and cruelty with which we are accustomed to associate our thoughts of Siberia, are inflicted upon two very different classes of exiles from those we have spoken of.

The first of these two consists of Russians, who have been convicted of the most atrocious offences, and who have been sentenced to Siberia after having been subjected to that most horrible punishment the knout. It is only after being convicted of the most heinous offences such as but a very few years ago, our own laws would have punished capitally, and after the senate has inquired into the case and confirmed the sentence that prisoners are placed in this class of exiles. When sentenced after having corporal punishment, if awarded to them, they are driven chained, and with bare feet, to the dreary mines of Nertschink, whence it is rare indeed for one of them to be liberated. The lot of this class of exiles is more horrible than even death itself; but it is an error to suppose the same treatment to be applied to all without distinction.

So far is this from being the case that as we have said above, there is a third class. This, like the one we have just now described, consists of persons who have been convicted of infamous crimes, but not of quite so heinous a character. These are in a pretty similar position to the convicts in New South Wales, being distributed among the free inhabitants as bond servants. The necessary time, however, is allowed them to earn if they choose to be diligent sufficient means to purchase many comforts, and thus, though their punishment is sufficient in itself it is small in comparison with that which is inflicted upon the doomed and suffering who drag out their existence in the gloomy depths of the mines of Nertschink. Siberia is now filled with expatriated Poles the descendants of the oldest republic in Europe, the children of the Jagellons who once rioted in the conquered palaces of Moscow, but are now the serfs, the bondsmen and bondwomen of an autocrat whose forefathers were but petty Dukes, who trembled at the mention of Poland's wrath. Immediate conquest is no sign of long prosperity. Virtue and union would have saved Poland, but even after the great victory of Vienna won by John Sobieski, he looked on the contentions of his countrymen with a sadly though prophetic eye, and exclaimed, "yet forty years and Poland is no more."

#### A Just Minister.

When Sir Thomas Moore was Lord Chancellor of England, he ordered a gentleman to pay a sum of money to a poor woman whom he had wronged. The gentleman said, "I hope your lordship will grant me a long day to pay it." "I will grant you your motion," said the Chancellor. "Next Monday is St. Barnabas day, the longest day in the year; pay the woman on that day or I will commit you to prison."

#### Submerged Wind Propeller.

An English engineer has invented and at his own expense fitted up one of his Propellers and tested it on the Thames, where it performed on its first trip at the rate of 12 miles per hour. The invention is simply the application of the old fan-mill principle, the blowing machine acting upon the water as upon the air, simply by collecting it at the centre and throwing it off at the circumference of the vanes, from whence it impinges on the segment of a circle, placed so as to form a volute to the centre and by that mode to leave the opening in a strong current parallel to the sides of the vessel. This propeller has a case on each side of the vessel attached to it something like as if each case or cylinder was a reaction water wheel, but only the interior arrangement is different, as the blowing, or propelling vanes, are worked by bevel gearing attached to the main shaft. The first experiment was very successful, in comparison with those of our first steamboats, but this we think is more to be attributed to the perfection at which we have arrived in the construction of steam engines than to improvements in paddle, screw or blowing machines. Mr. T. B. Simpson is the name of the inventor of the above application, and for which he has taken out a patent in England. He is sanguine of success, but time and experience, we believe, will prove it to be rather inferior than superior to the common paddle system of propulsion.

#### A Tidal Mill Company.

A Tidal Mill Company has been formed in England, and have exhibited one of their machines on the river Thames, below the Southwark Bridge. It is a floating ark with a submerged wheel, which is operated on by the tide, and answers well for a sawing and planing mill.

The following are the rates of power, and it will be seen that it can be applied very economically and very extensively on a great number of our rivers which are deemed to be perfectly useless in mechanical application.

Tides or currents miles per hour, 2, 3, 4, 5, 6.  
Wheel 7 feet diameter, in the above ratio, working 2, 3, 4, 5, 6 horse power.

Wheel 14 feet diameter, 8, 12, 16, 20, 24 horse power.

A number of these wheels we believe are in use on the rivers of the Continent of Europe, and by having the circumference of the driving wheel of a thin band of iron, it carries a band that drives a pulley on the deck above

#### TO CORRESPONDENTS.

"S. T. H. of Mass."—Your improvements in the weaving loom so far as your imperfect sketch and drawing will allow us to judge, are original although of no great advantage, we would not advise you to be at the expense of making application for a patent, you are perhaps a better judge whether it would be profitable to yourself or not, but we deem it a duty to be honest in giving advice as we would not wish any person to expend money injudiciously.

"H. O. of N. Y."—There are differences of opinion regarding the Newtonian theory of light, and certainly we must not pretend to be in advance of more eminent men.

"S. T. of Ohio."—Look well to your honors.

"L. R. of Tenn."—We are glad you have made out so well with your bargain. We are prepared to sell the right also for Miss. on reasonable terms. We have not the agency of any planing machine. John Gibson of Albany has the right of Woodworth's, and he is a nipper to come across in a law suit.

"W. T. of N. Y."—Do not be ashamed of being poor. Remember the words of wisdom, "he that is diligent in business shall stand before princes."

"A. W. C. of N. Y."—The rotary steam engine that was experimented upon in a sloop of war at Cbatham, England, and was a failure, was the invention of Lord Cochran, a well known inventor. Its peculiar construction is unknown to us. It broke down in a rough sea.

"W. M. B. of Skeanetles."—The manufacturers guide is a good book, but we recommended Ure's dictionary of manufacturers and