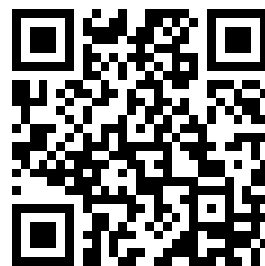


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# THE EXECUTIVE DOCUMENTS

PRINTED BY ORDER OF THE

SENATE OF THE UNITED STATES

FOR THE

FIRST SESSION OF THE FORTY-THIRD CONGRESS.

1873-'74.

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## IN FOUR VOLUMES.

Volume 1 contains Nos. 1 to 42, inclusive.  
Volume 2 contains Nos. 43 to 56, inclusive.  
Volume 3 contains No. 57. Ship-canal *via* the Lake of Nicaragua.  
Volume 4 contains No. 58. Report of Commissioner of Patents.

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WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1874.

MESSAGE  
FROM THE  
PRESIDENT OF THE UNITED STATES,

COMMUNICATING

*A copy of the report of John M. Thacher, a delegate to the Vienna Exposition, held in August, 1873, on the subject of the protection of patents.*

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FEBRUARY 18, 1874.—Read, ordered to lie on the table and be printed.

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*To the Senate and House of Representatives :*

I transmit herewith a communication from the Secretary of State and accompanying papers.

U. S. GRANT.

WASHINGTON, February 17, 1874.

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DEPARTMENT OF STATE,

Washington, February 17, 1874.

Herewith I have the honor to transmit a copy of the report of Mr. John M. Thacher, who was appointed, in June last, as a delegate to represent the United States at the International Congress which was held at Vienna in August last for the consideration of the question of the protection of patents.

Respectfully submitted.

HAMILTON FISH.

The PRESIDENT.

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*Mr. Thacher to Mr. Fish.*

WASHINGTON, January 30, 1874.

SIR: In the letter of instructions accompanying my appointment by the President as one of the representatives of the Government of the United States to an International Patent-Congress, convened last August in Vienna during the progress of the international exposition, I am directed to report to the Secretary of State.

When this appointment was made it was supposed that the proposed convention would have an official character, and that representatives of different governments, especially that of Austria-Hungary, would be present to participate in its deliberations.

Upon arriving in Vienna a few days before the congress was to con-

vene, I immediately sought our minister to Austria-Hungary, Mr. Jay, with whom I was associated in the duty of representing the United States in the proposed convention. To my great surprise he informed me, not only that he had declined to act as a representative, but also that the government of Austria-Hungary had withdrawn from the congress all official sanction and would not be represented therein by officially accredited delegates. Information was also received that, with the exception of the United States, no government had appointed representatives to the congress, and that as far as known the official notice requesting an international convention on the subject of patents received by our Government, and supposed to have come from that of Austria-Hungary, had not been transmitted to the governments of other nations. The friends of the movement, however, determined not to be thwarted in their purpose, had devised a plan for assembling in convention those interested in this subject, under the auspices of the president, Archduke Regnier, and the director-general, Baron Schwarz Senborn, of the Vienna Exhibition, who had joined in issuing the original programme (see Exhibit A) on which the congress was founded, and in response to which it was supposed many would be present in Vienna at the time proposed for the purpose of discussing the subject of patent-protection. By this arrangement the so-called congress became a kind of mass-convention, open to any one desiring to participate in its deliberations and willing to pay the price fixed for a ticket of admission.

Under these circumstances I concluded, after consulting with Mr. Jay, that, as the congress had lost its official character, it would not comport with the dignity of my Government to present my credentials from the President of the United States to this unofficial body and become an active member thereof.

No attempt will be made here to discuss the question of responsibility for the unfortunate misunderstanding which thus placed the official delegate of the United States in an embarrassing and somewhat humiliating position at Vienna. It is a diplomatic question, with which I have no concern. I have deemed it necessary, however, to state the condition of affairs, as it was found, in justification of the course subsequently taken.

It appeared that a convention, more or less international in its composition, would be held, in which subjects of great importance to citizens of the United States would be discussed, and conclusions reached which might or might not be for their advantage. It seemed desirable, therefore, that I should remain in Vienna to watch the proceedings of this assembly, to give such explanations and advice as occasion might demand and circumstances permit, and to endeavor to secure through others such action as would forward the interests of American inventors and patentees. My presence in Vienna being known to many members of the congress, a resolution was adopted at the third session inviting me to address the assembly on the following day. This invitation presented a favorable opportunity to explain our patent-system, and to present some statements as to its effect upon the material interests of our country. I willingly acceded to the request, therefore; but, with this exception, I took no active part in the proceedings of the convention. (A copy of the "Official Gazette of the Patent-Office" containing the address is attached, and marked Exhibit B.)

The convention, or congress, assembled August 4, and continued in session five days, a final adjournment having been reached August 9,

73. A respectable number of gentlemen, representing several nationalities, were present, among whom were some noted as inventors, and

others eminent in various departments of science or the domain of law. (An official list of members, Exhibit C is appended.)

The proceedings were conducted in German and English, and were in the main harmonious, the discussions being sustained with spirit and intelligence. It was an agreeable surprise to Americans, however, in view of the great difference between our patent-system and that of European countries, to find a majority of the speakers warmly supporting our advanced ideas in relation to patent-property and commending our system as that to the attainment of which their efforts should be directed. The opponents to any system of patent-protection for useful inventions had scarcely any strength in the congress; indeed it was evident at the very outset that an overwhelming majority of those present were friendly to this method of rewarding inventive genius. This may also be regarded as the prevailing sentiment among the civilized governments of the world, for most of them have adopted patent-protection, in some form, as a means of encouraging the useful arts among their citizens. But, in the principles which lie at the foundation of the grant, and in the measure of protection afforded thereby, there is a great difference. In England is to be found the earliest statutory enactment conferring exclusive privileges in the practice of a new invention, or, as it is called in the statute, new manufacture. Records of grants of this nature are to be found as far back as Edward III, conferred in the exercise of the recognized prerogative of the Crown to grant "monopolies." The "Statute of Monopolies," (James I, 21,) while annulling all monopolies of a strictly commercial character, excepted grants for the exclusive working of new manufactures for limited periods.

The English patent-system is the outgrowth of this statute, the spirit of which has lived through all succeeding changes; for the grant of a patent is still regarded as a favor from the Crown, and in some sense a monopoly in nature. As might be expected, the English statute has always failed fully to recognize the rights of original inventors and amply to provide for their protection. In the absence of any provision for an official examination, the only guarantee of novelty in the invention for which a patent is granted is the oath of the applicant, who also swears that he has made an examination for the purpose of ascertaining the truth of his statements. The result is that the same thing is often patented over and over again, and a patent in England has no value until its validity has been established by litigation.

Provision is also made for the issue of patents to mere introducers of foreign inventions without regard to the question of originality, which encourages a system of piracy as demoralizing as it is unjust.

The same theory as to the nature of the grant prevails generally on the continent of Europe, while its application in most instances has resulted in legislation even more objectionable, amounting to little more than provision for the formal registration of an invention, with the questionable privilege of fighting for it afterward before the courts of the country, which usually proves a very tiresome and expensive luxury. By another provision, established by nearly all governments of Continental Europe, the patentee is required to commence the manufacture of his invention in the country where patented within a short time subsequent to the grant, and prosecute it continuously thereafter, under penalty of forfeiture of the patent. This requirement is regarded by inventors, almost universally, as a great hardship, exceedingly injurious to their interests, and wholly inadequate to secure the result desired, to wit, the speedy and general introduction of the patented invention into public use.

The patent-system of the United States is in many respects radically different from that of any other country. Inferentially, at least, the purpose of the framers of the Constitution appears to have been to recognize property in a new invention as a right belonging to the inventor, not a favor conferred by Government. This is their language: "The Congress shall have power \* \* to promote the progress of science and useful arts by securing, for limited times, to authors and inventors the exclusive right to their respective writings and discoveries." (Constitution of United States, Art. 1, sec. 8, cl. 8.)

Referring to this, during argument, in the famous case of *Goodyear vs. Day*, Mr. Webster said :

The American Constitution does not attempt to give an inventor a right to his invention, or an author a right to his composition; it recognizes an original, pre-existing, inherent right of property in the invention, and authorizes Congress to secure to inventors the enjoyment of that right, but the right exists before the Constitution and above the Constitution, and is, as a natural right, more than that which a man can assert in almost any other kind of property.

In the application of this principle, repeated legislation has provided the most liberal means for the enjoyment of rights thus recognized. But it has been the prevailing opinion that it is the best policy to determine, so far as possible, what these rights are, before the issue of a patent; and so a bureau has been created, expressly charged with the business of issuing patents, and known as the Patent-Office, whose officials are directed to inquire as to the novelty and utility of the alleged invention, and the priority of right of the alleged inventor, to the end that, so far as possible, common rights may be preserved, while those justly belonging to the inventor are secured in such a manner as to prevent in a great measure subsequent vexations and expensive litigation. In the grant of patent-privileges no discrimination is made between citizen and alien, and no restriction is placed upon the exclusive right of the patentee to control the property secured to him by his patent, in the same manner and to the same extent as any other property.

Another cause of great dissatisfaction with the operation of patent-systems abroad is the fact that, except in England and France, the courts of European countries have generally shown great illiberality toward inventors in construing statutory provisions; so that in many instances persons holding patents for valuable inventions, exhausted by long-continued and expensive litigation, have abandoned the prosecution of rights to which they were clearly entitled. This, also, is in marked contrast with the practice in our country; for, in addition to a liberal policy in granting patents, the interpretation and application of the law by the Federal judiciary of the United States have been, as a rule, just and favorable to the inventor, although, owing to accumulation of business, patent-litigation has become almost as expensive and wearisome in this country as in others.

Notwithstanding some defects our patent-system is very generally regarded by our citizens as the best yet established; judged by its fruits, the opinion appears to be correct. It was to be expected, therefore, that Americans in the Vienna congress would ask for the adoption of principles similar to those the beneficial operation of which they had witnessed at home. Such was the case; and their efforts were ably seconded by citizens of other countries, who, apparently, had given the subject much thought and attention, and had arrived at about the same conclusions.

The scheme of devising an international patent-law, which should be recommended for adoption by all civilized nations, was not seriously considered. Its absurdity and impracticability were generally appre-

ciated, and the discussions were directed rather to the proposal of certain fundamental principles as the proper basis of patent-legislation in different countries, the details of the system being left to the law-making power within the respective governments.

These discussions resulted in the adoption of a series of resolutions embodying the conclusions and recommendations of the congress. (A copy is attached, Exhibit D.)

With a few exceptions these resolutions are perfectly in harmony with our patent-system. There is no occasion for discussing those which announce principles already recognized by legislation in this country. Therefore those resolutions only will receive attention the recommendations of which, if adopted here, would require some change in the patent-law now in force.

There are to be found among the subdivisions of the second resolution, which announces the principles on which patent-legislation should be based, and are those designated respectively by the letters *d*, *f*, and *h*. Section *d* declares that "A patent should be granted either for a term of fifteen years or be permitted to be extended to such a term. This period is two years shorter than the term for which letters-patent are now granted in the United States. Prior to 1861 the term was fourteen years, with the privilege of an extension for seven years longer in meritorious cases.

After an experience of many years, this term was believed to be too short, and accordingly, in 1861, two years were added to the lifetime of a patent, and the privilege of extension abrogated. So much time is consumed, in very many cases, in introducing a patented invention into public use, that the term of seventeen years seems none too long for the purpose of enabling the inventor to obtain remuneration for his time, labor, and expense; and, in fact, very many assert that either the term should be longer or the privilege of extension should be restored.

I am satisfied that the reasons for this opinion are well founded, and therefore cannot recommend a change of our law, abbreviating the lifetime of patents as at present established.

This recommendation was not intended, however, as an inflexible rule; but the understanding was that, if in any country a longer term than fifteen years should be thought advisable, it would not violate the spirit of this recommendation. Our present law may be regarded, therefore, as in spirit at least in harmony with the section which was intended only as an expression of opinion, that a patent should be granted for at least fifteen years.

Section *f* is as follows:

The expense of obtaining a patent should be moderate; but, in the interest of the inventor, a progressive scale of fees should be established, enabling him to abandon, when convenient, a useless patent.

To the first clause there can be no objection, especially none in this country, where it has never been the intention to make the Patent-Office a source of revenue to the Government; the only purpose of fees being to cover actual and necessary expenses.

The second clause recommends, in substance, a system of periodical payments, like that of England for instance, which, it is stated, "was adopted with a view to, and as a means of, extinguishing or causing the lapsing of patents for inventions not actually in use or yielding benefit to their owners."

There was no intention of recommending the payment of fees annually, as is the practice in some countries. This system of periodical

payments has never been tried in this country, although its adoption has been agitated occasionally. It has a strong argument in its favor. It not infrequently happens that patents valueless in themselves, for want of practical utility in the invention, as an organized machine, containing valuable devices, which, incorporated by others in improved machines, may become exceedingly useful and valuable to the public; yet, the introduction into use of the improved machine, even though patented, may be greatly embarrassed by the existence of a prior but worthless patent. It has been urged with considerable force that, if a system of periodical payments should be established here, this difficulty would be removed in a great measure by the lapse of the majority of such worthless and unremunerative patents.

In this connection the following statement of Mr. Thomas Webster, Q. C., an eminent patent-lawyer of London, in relation to the operation of the English system, is important:

About one-fourth of the applications proceed no further than the first stage of provisional protection; they may be said to die from natural causes. Of the patents actually granted, about three-fourths lapse at the expiration of the third year, leaving only one-fourth surviving; nine-tenths lapse at the end of the seventh year, leaving only about one-tenth surviving. According to this list, it would appear that not more than one-tenth of the patents granted are for inventions of sufficient utility to bear the payments at the end of the seventh year.

I have no doubt that the adoption of a similar system here would be beneficial in frequently removing obstacles to the general introduction and use of new and improved machinery; at least, it would do no harm to try the experiment for a few years, when, if found injurious to the interest of inventors and owners of patents generally, it would no doubt be willingly abandoned.

But if such a system should be adopted, I think that, with the present lifetime of American patents, there should be no more than two additional payments; for instance, seven and twelve years from the grant of the patent, and the sums should be so small as to be within the reach of all; for instance, from fifteen to twenty-five dollars. Section *k* contains the only really objectionable recommendation to be found in the resolutions. It is as follows:

It is advisable to establish legal rules, according to which the patentee should be introduced, in cases in which the public interest may require it, to allow the use of his invention to all suitable applicants for adequate compensation.

This language will be understood to contemplate compulsory licenses; and although in general terms and not intended to be so construed as to operate harshly toward the inventor, it is, nevertheless, liable to such interpretation as would place him wholly at the mercy of wealthy manufacturers.

The recommendation is believed to be foreign to the spirit of the American patent-system. If, as has been suggested above, it was the object of our Constitution to recognize the full right of property in an invention, and if our legislation heretofore has been in the same spirit, it would be manifestly unjust and improper to restrict the use of this kind of property in any manner not permissible with property in general.

The inconsistency of granting a patent recognizing exclusive right to an invention, and then by another provision of law compulsorily limiting that right in the manner here proposed, must be apparent to every one. Where the patent is regarded in the nature of a favor bestowed upon a subject by the Crown this inconsistency may not exist, and perhaps it was for this reason that the English representatives in the Vienna congress so strenuously insisted upon the adoption of this section.



It appears that in England opposition to the grant of patents has been made because of the existence of what are called obstructive patents; that is, patents for inventions not in use, but covering others, protected by subordinate patents, or patents worked by the owners thereof to the entire exclusion of all other manufacturers in that particular branch.

It was to remove this objection, and silence opposition to the grant of patents on this ground, that this section of the resolution was introduced and finally carried by the English and Germans in the convention. It is not believed that the evil complained of exists in this country, certainly not to any great extent; for it has been found that, as the patentee is dependent for his remuneration upon the introduction of his inventions into use, he will be induced, almost invariably, to grant licenses with the greatest freedom, and upon terms generally liberal, to all applicants desiring to manufacture and use his invention. Even if this was not true, it is doubtful whether such restrictions upon the rights of property as are here contemplated would be sustained as lawful in this country. In my opinion any system of compulsory licenses would be injurious, and inapplicable to the United States, and therefore I cannot recommend a change in the legislation of this country in the direction of this recommendation. If I had been a member of the congress I should have strenuously resisted its adoption.

In closing the consideration of the resolutions, I desire to call attention to section i, which is as follows:

The non-application of an invention in one country shall not involve the forfeiture of the patent, if the patented invention has been carried into practice at all, and if it has been rendered possible for the inhabitants of such country to purchase and make use of the invention.

This was intended to be an emphatic condemnation of the practice in most countries of subjecting patents to the condition that the invention must be manufactured and put in use within the country in one or two years from the date of the grant. As already stated, dissatisfaction with the operation of this condition was generally expressed, and the vote by which this section was adopted was nearly or quite unanimous.

This fact is encouraging, as it shows the growth of progressive ideas among the citizens of foreign countries in relation to this subject. A fuller discussion of the questions considered by the Vienna congress at some future time will undoubtedly lead to stronger denunciation of the illiberal features of patent-legislation in Europe, and a modification, it is to be hoped, of the recommendation for legislation compelling a patentee to grant licenses for the practice of his invention on terms established by others.

One of the most satisfactory acts of the congress was the perpetuation of itself by the appointment of a permanent committee, with power to continue the work there begun, to organize adjunct associations in the respective countries represented, and to call another general congress at such time as should seem advisable. This committee was created by the last resolution of the series, and power given to it to add to its numbers at pleasure.

The committee met and organized for the transaction of business on the day following the final adjournment of the congress. An official report of their proceedings is attached, (Exhibit E.)

As a matter of interest it may be proper to state here that a large number of influential gentlemen in England are anxious to secure such reform in the legislation of their own country as will bring their patent-system into harmony with ours. I had the pleasure of meeting

many of these gentlemen in England, and discussing at considerable length various topics relating to this subject. A desire was expressed by several for the creation of an Anglo-American commission for the purpose of taking into consideration this subject, with a view to an assimilation of the law and practice relating to patents in the two countries. Whether this desire will ever assume a tangible form it is impossible now to determine; but if such a result should be attained it would go far toward securing a corresponding change in those patent-systems of Europe against which complaints are loudest.

It may be that the friends of this movement in England may be able to secure from their government a request for such a commission, in which case I believe it would be desirable that our Government should meet these friendly approaches in a cordial spirit, and use all reasonable effort to secure a result which would be productive of great benefit to our citizens.

The action of the Vienna congress appears to furnish ground for the belief that the time is propitious for pushing forward the proposed reform with flattering promise of success.

American inventors are greatly interested in securing this success, while other nations would undoubtedly be greatly benefited by more liberal legislation to secure protection to inventors in their respective countries. But in no country, probably, is there at the present time so large a number of persons who would be benefited by such changes as in the United States. It is desirable that Americans should be able to find a market for the product of their inventive genius co-extensive with the bounds of civilization. Their early co-operation in the movement inaugurated at Vienna will, in my opinion, go far toward securing this desirable result.

Respectfully submitted.

J. M. THACHER,  
*Assistant Commissioner of Patents.*

WASHINGTON, D. C., January 30, 1874.

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#### EXHIBIT A.

#### UNIVERSAL EXHIBITION, 1873, IN VIENNA.

*International congress for the consideration of the question of patent-protection.*

#### PROGRAMME.

In the series of disputed questions within the province of political legislation belongs at this moment the question of patent-protection, or rather the question of the protection of the right of invention.

As an object of legislation, its origin extends back to former centuries, as, for instance, in Great Britain the right of the Crown to the concession of patents for invention was established by the acts of Parliament of 1623. But as a matter of controversy it is scarcely twenty years old; yet notwithstanding its recent date, it already possesses its peculiar history. The question of patent-protection, as it now stands, includes no longer simply the inquiry how the right of the inventor is to be protected in the best manner, the most conformable to its design and the least prejudicial to the general welfare; and whether the natural right of the inventor may become regarded in advance as absolutely justified; but the question rather imposes upon those who apply themselves to its consideration, first the duty of refuting the latest doubts and scruples against the practicability and economical utility of such a protection; and then the endeavor to effect a uniform transformation of the existing law of patents, which is now as various as it is complicated.

It would scarcely accord with the importance of the pending question of patent-

protection to disregard the chief arguments of its opponents. There exists to-day an anti-patent movement which since 1860 has extended too far, and the causes of which movement bear, in part at least, too much upon views which are generally acknowledged by the economical progress of our age, to justify at this time, as hitherto, a partial solution of that problem.

The complete abolition of all patents for inventions; such is the motto of this movement. Patent-protection, the maintenance and improvement of the existing patent law, if possible in simple form, and by international agreement; such is the watchword of the other.

The present condition of patent-legislation in the most enlightened and progressive countries shows on which side the majority stands; with the exception of Switzerland and, with her, Holland, which recently abolished her patent law, the legislation of all the other industrial states to-day recognizes the protection of patents as a necessity; and the history of the patent-system for the last twenty years is a continuous evidence of the tendencies of the respective governments, not in the direction of a gradual abolition, but in the direction of a thorough reform of patent-protection, and especially in removing the disadvantages of a territorial limitation of patents granted for inventions.

All the views, however, even those of the partisans of patent-protection, unite invariably and unexceptionally in this, that the protection of the rights of inventors needs new forms corresponding to the altered international commercial relations; and that the solution of this question of reform should not be aimed separately, as hitherto, by each state of the great international commercial area, but rather that a complete solution common to all states should be accomplished by international agreement.

This work of reform can the less dispense with such unanimity, as the present territorial limitation of patents for invention forms one of the chief defects of the existing system; and as matters now stand, the days of patent-protection on the continent may be regarded as numbered, should the effort fail to establish an universal rule and introduce it into the law of nations.

We live no longer in the day of industrial action, which is strictly confined and is removed from foreign competition, and where slow communication prevents or delays the utilization of inventions. We live at a time of liberal customs policy; steam and electricity have newly united once isolated seats of industry in a way undreamt of; and the mutual exchange of goods shows to-day a magnitude which a generation ago one could not have imagined. Under such altered relations, the patent granted for an invention in one country becomes in fact a restriction, unprofitable and obstructive, if the same invention, without limitation or increase in price, becomes in an adjoining country common property. The artisan who in the one country must work with the auxiliary material there patented, and therefore dearer in price, will suffer an essential injury as soon as the same material is produced in the other country, not only without restriction, but with a damaging competition. Moreover a continuance of the hitherto antagonistic views and measures would scarcely conduce to the preservation of general harmony; and if, for example, patent-protection were maintained in one country, so as to attract thereby skilled operatives from another, then the danger of disturbance of the international industrial balance might readily be apprehended. Such and similar inconveniences can only be met by the common action of all civilized states disposed to the maintenance of patent-protection.

The solution of this problem may be alike difficult and tedious, but the impossibility of its solution has, however, not been proved, and it is at all events a problem, the importance of which is worthy the effort.

But where, for such an attempt, could be found an occasion more appropriate and more legitimate than one where the laboring part of mankind meet from all quarters of the world in peaceful rivalry; where men of science and of practical ability, scientific artisans and political economists, representatives of the higher industry and the smaller trades, unite to bear testimony of the high degree of culture to which education, labor, and inventive spirit have advanced the human race!

The Vienna Exhibition of 1873, called for the embodiment of universal progress in culture, would seem more peculiarly adapted to pay tribute to the spirit of invention, even from the stand-point of modern legislation, and to form the starting era for a new and universal codification of the rights of inventors. Had there been any doubt of the connection of this right with the aims and ends of such an universal exposition, previous exhibitions would have solved it. The recent patent-legislation of England is the immediate result of the London Exhibitions of 1851 and 1862, while the Paris Exhibitions of 1855 and 1867 produced, as is well known, temporary protection-laws, which it was thought expedient to imitate in the preparatory acts for the Vienna Universal Exhibition of 1873, (law of 13th November, 1872.)

In pursuance of these views, and following a suggestion of the Government of the United States of America, the General Direction of the Universal Exhibition intends to unite with the exhibition an international congress, which shall discuss the question of patent-right; should this discussion, as may be foreseen, induce a vote in favor of

patent-protection, it will then be the task of this congress, on the basis of the experience of various countries and the materials collected, to proceed to a declaration of fundamental principles for an international reform of patent-legislation.

The international congress for the consideration of the question of patent-protection is to take place after the close of the July deliberations, on the 4th, 5th, and 6th of August, 1873, under the following regulations :

1. Manufacturers, scientific artisans, political economists, and other experts, are entitled to participation in the congress, in both its full and sectional deliberations, and in its decisions.

2. The applications for participation in the congress must be made to the respective exhibition commissioners, domestic and foreign. Based upon the applications communicated by these commissions, (at the latest by the end of June, 1873,) to the chief manager of the universal exhibition, cards entitling the applicants to membership will be transmitted to them.

3. It will rest with the governments of nations which exhibit to be represented in this congress by special delegates.

4. At the seat of the general direction a committee of preparation will be appointed, whose duty it shall be to prepare the materials to be laid before the congress, to elaborate the matters of inquiry, and, in general, to prepare all the preliminary matters for the opening of the congress.

5. The chief manager of the universal exhibition opens the congress. After its opening, the congress elects from its members the president and the bureau, determines the order of business for the accomplishment of its work, and proceeds then to a general discussion of the question of patent-protection.

The decisions of the congress will be communicated, through the several commissions, to the respective governments.

6. The language of the congress is German, but the English, French, and Italian are also admitted.

7. All written communications, works, and propositions relative to the international congress for the consideration of patent-protection are to be addressed to the chief manager up to the time of the opening of the congress, but during its sittings to the bureau of the congress.

Forty-two Praterstrasse. March, 1873. Vienna.

The president of the imperial commission :

ARCHDUKE RÉGNIER.

The chief manager :

BARON DE SCHWARZ-SENBORN.

## EXHIBIT B.

[Official Gazette of the United States Patent-Office, Tuesday, October 21, 1873.]

### *International Patent-Congress.*

#### VIENNA.

[The following letter of the President of the Patent-Congress of Vienna, and the address (from phonographic report) of the Hon. J. M. Thacher, Assistant Commissioner of the United States Patent-Office, and United States representative at said congress, are of sufficient interest to require their publication here. The resolutions of the congress are to be found on page 209 of the current volume of the Official Gazette.—EDITOR.]

42 PRATERSTRASSE 11,  
VIENNA, am 6 August, 1873.

SIR: I beg leave to inform you that the Patent-Congress, over which I have the honor to preside, passed this day, unanimously, the following resolution, and I hope that you will kindly consent to the request expressed by that assembly.

I have the honor to be, sir, your obedient servant,

C. WILLIAM SIEMENS.

The Hon. J. M. THACHER,

*Assistant Commissioner of the Patent-Office, Washington.*

Read and resolved to be sent :

" It has been publicly announced that the American Government, in consequence of an official notification from the Imperial and Royal Government, appointed the Hon.

J. M. Thacher, Assistant Commissioner of Patents of the United States, to represent them at this congress, but that Mr. Thacher, on his arrival, finding that the Austrian and other governments were not officially represented, had declined to take his seat.

"In view, however, of the great interest for this congress in the views and practice prevailing in the United States as bearing upon the questions now before us, this Congress respectfully ask Mr. Thacher to favor them with a statement of his views upon this subject, and that half-past two o'clock, on Thursday, the 7th instant, be appointed by the congress for this purpose."

ADDRESS OF HON. J. M. THACHER BEFORE THE INTERNATIONAL PATENT-CONGRESS.

*Mr. President and Gentlemen :*

I wish to return my hearty thanks to you for the invitation so courteously extended to me to address you here, and to assure you that my interest in the debates of this congress is not in the least affected by the fact that owing to unfortunate circumstances I have not participated actively therein. I regret exceedingly that I find myself placed in a position such that I have felt it would be improper for me to take my seat as an active member of the congress; but my sympathies—my whole heart—have been with you, and I hope that the final conclusions and resolutions of this congress will be fraught with great and important interests to the entire civilized world.

Permit me, gentlemen, briefly to explain what I understand to be the foundation of patent-protection for inventions. And first, I believe that patent-protection is founded in justice to the individual. One of England's greatest jurists has said, in substance, that it is universally conceded that man has the right of property in whatever he bestows labor upon. This was spoken with reference to manual labor; but when this principle is applied to invention, by so much as the mental faculties are higher than the physical, by so much does the individual seem to me to have a stronger and more righteous claim to property in the product of these mental powers than in the product of the physical. So, then, I am prepared to make this my first proposition—and I think it may be sustained before the whole world—that the protection of inventions by some good patent-system is founded in justice to man himself, by granting to him the right of property in the product of the highest faculties which God Almighty has given to him. I should be glad to elaborate this point; it is one full of interest to us, full of interest to the great mass of inventors throughout the world, but there is so much pressing upon me in the short time which I can consent to detain you from your legitimate discussions that I can only briefly notice this point with others. I wish to say simply this, that comparing the completeness of possession which the inventor has of his inventions with that which one has of the product of his physical powers, there can be found no higher right to the complete control of anything coming into the possession of man than that which he has to this product of his intellect. He has made it himself. If he keeps it to himself it is entirely and solely in his possession. No man can take it away; no process of law can extort it from him. He has a stronger and more valid right to it, based on possession, than even to his landed estates. Now, gentlemen, if this be the case, if man has such complete control over his invention, I can see no obligation on his part to impart it to others, unless it be for his own interest. I can see no obligation on his part to disclose it to others, unless he is permitted to control and use it as he would other property. f

But I believe that patent-protection is founded not alone upon individual right of property, but that it is based, secondly, on expediency, or a proper regard for the public good; in other words, that it is not only the right of the individual inventor to receive some protection, some legal recognition of his right to property in his invention, but also that the public welfare is advanced, and demands that he should thus be recognized. It is unnecessary before this assembly of intelligent men, who have thought upon and discussed these subjects, to say one word in support of this proposition. That inventions are beneficial to the world is conceded by all, both those who sustain the policy of patent-protection and those who oppose it. The progress of the industrial arts is desired by every people. Now, then, if progress in the industrial arts is desirable, and if inventions are conducive to that end, any system by which inventions shall be stimulated, and thereby greater and more substantial progress shall be attained, is a great and lasting public benefit. But patent-protection is desirable on grounds of public policy, not only on account of the general benefits that arise from inventions, but because in this way only can inventors be induced to fully disclose to the public the products of their inventive genius. Give a man no protection, give him no inducement to disclose his invention, and how does he seek to secure some remuneration for the important discovery he has made? The only way open to him is to maintain it a secret. So long as he can keep it concealed from all the world and work it in secret he has some hope of securing benefit therefrom, but the moment he discloses it

he loses dominion over it, and it becomes the property of mankind. So that if the inventor has no protection whatever his only hope of securing some reward for a valuable discovery is to keep it concealed and work it in secret. I need not stop long to prove the undesirability of such a practice; it is almost universally conceded. First and greatest of all objections to such a course is the fact that the manufacture becomes in this way one of the most odious monopolies that can be established, for just so long as the invention can be kept secret and can be practiced in secret, and is a desirable product, just so long can the inventor or manufacturer demand from the public whatever price he thinks best. An article may be held up in price, the public may be compelled to pay any demand, and the possession of the secret handed down from generation to generation, one of the most odious monopolies that can be suggested; or, what would be equally disastrous, lost to the world entirely by the death of the inventor. It is necessary then to the progress of the arts, to the substantial welfare of the public, that measures should be adopted which shall induce the inventor to make the fullest disclosure possible of the invention he has made. But we have not reached those millennial days when men shall be influenced by motives of philanthropy alone. Unfortunately it is the pocket that controls men more or less in every station and in every country, and it is only from hope of reward, only from hope of substantial reward, that inventors, as business men, can be induced to disclose their discoveries, and thereby give them to the world as a public benefit. I say, then, for the purpose of making the invention a public benefaction by securing its disclosure fully and completely to the world, open to all those who may wish to manufacture under suitable laws, some protection must be afforded, either by patent-laws or by some other means.

Passing from this second fundamental principle, which I cannot stop to elaborate, the next inquiry is, if protection is just, and is desirable on the ground of public policy, what is the best system for securing the rights of the inventor and promoting the public welfare? Well, the only means, except by patents, that has been suggested with any show of reason, or really with any support, is that of giving the inventor a certain gross sum as a reward for the disclosure of his invention. It seems to me that the moment this plan is presented to practical minds its defects must be apparent. In the first instance it is impossible to determine the value of an invention when it is first made. Why, the history of inventions in our country, and in all others, so far as I know, is to this effect—that some of the most important have been least valued when first disclosed. The facts are familiar to you, and I need not refer to instances. All through the history of inventions in the world we find instances of inventors struggling from year to year to introduce their inventions. Some of them have gone down to the grave impoverished by their exertions, by the expense of time and money which they incurred in their attempts to convince the public that they had produced something valuable, and it has been left for future generations to take up their inventions, introduce them, prove their great utility to the world at large, and receive the reward. I think, then, it is utterly impracticable to determine the value of an invention when it is first disclosed. Suppose it might be approximately determined, the inventor on the one hand might at times receive too large a reward, for not only does history show that inventions have been underestimated at first, but what has appeared to be valuable and promised to be of great utility and benefit to the world has sometimes proved to be utterly useless. And, on the other hand, if the invention be underestimated, and the inventor sees it coming into general use without adequate reward to himself, the injustice done him is great, and the stimulus to further effort is taken away. The impracticability of this means of rewarding the inventor for his time and expense, it seems to me, must be so patent to every practical mind that it needs no further comment; and I dismiss it with the remark that, so far as our country is concerned, I believe it would be utterly impracticable and impossible to establish such a system there.

The grant of letters-patent for a limited term is the only other mode which has been adopted as the means of rewarding the inventor and benefiting the public. It appears to me to be the only just and practicable manner of securing these ends. The inventor being secured in the exclusive right to his invention, has a fair opportunity to place it on the market the same as any other property, with the hope that the demand will be such as to afford remuneration for his time and expense, while to the public is secured the full disclosure of the invention and its introduction into use. It may seem to follow from what has already been said that the inventor's right must be indefeasible; but just here the public good comes forward and demands that a perpetual monopoly shall not be created, and, therefore, that the exclusive privilege shall exist only for a reasonable term of years.

But there are important considerations to be taken into account in establishing a system of protection by patents. What are some of the elements of a good patent-system? I say, first, that patents should be granted only for new and useful inventions; for new inventions only, because no man has the right to enter the public domain and obtain an exclusive privilege for what is already public property; and for useful inventions only, because no man has the right to obtain an exclusive privilege

for that which will not work a substantial benefit to the public at large. Now, it seems to me that these propositions are so self-evident that they hardly need elaboration. They must commend themselves to the common sense of mankind to such an extent that they hardly need argument in their support. Grant that the inventor has the right of property in his invention, and that right exclusive, and it necessarily follows as a corollary to this proposition that he cannot have an exclusive right to whatever already belongs to another or to the public. Grant, too, that he should have an exclusive right to his invention, but that he should have that exclusive right only because public policy demands that he should have protection for his property, and it necessarily follows as a corollary of that proposition, that he should not have an exclusive protection for that which is injurious to the public. I think, gentlemen, I may leave this point with the assurance that it is generally accepted by you, for I am happy to know that in the resolutions you have already adopted it is distinctly recognized and asserted.

I pass, then, to a second point, and say that patent-protection should be granted only to the original and first inventor. This may seem to be included in and to follow necessarily from the first proposition, and yet a moment's reflection will show that it is not so included, for if the law of any country should permit the introducer of the invention of another to secure an exclusive right thereto, the first requirements—to wit, that patent-protection should be granted for new and useful inventions only—would not be violated. I therefore maintain, as a second requirement, that patent-protection should be given to the original inventor only. This appears to follow logically and conclusively from the first proposition suggested, to wit, that patent-protection is founded in justice to the inventor in his natural right as an individual to the product of his mental faculties. If that is so, he alone has that right, and he alone, or his legal representatives, can have the right to exclusive patent-protection. Therefore, if he disclaims that protection—if he says, "I do not wish to obtain any exclusive privilege for this invention, but prefer to give it to the world," it belongs not to some introducer, who takes it from one country and carries it to another, but to the public. I know of no legal right, of no legal principle, by which the mere introducer of an invention from one country to another can justly obtain an exclusive right to such invention. The natural right belongs to the inventor only; and if he neglects to secure it for any reason whatever, it reverts to the public, and should become a part of the public domain. In former times there may have been reason for encouraging the bringing of inventions from one country to another by favoring mere introducers. In the then imperfect means of communication, commercial transactions were attended sometimes with great difficulties, and even great danger; and it can readily be seen that it would be just and politic for a government, in order to secure the advantages resulting from the transfer or communication of a foreign invention to its own inhabitants, to grant some exclusive privilege to the introducer thereof. But in these days, when means of communication have been so largely and so wonderfully improved, so that two continents can exchange ideas in the twinkling of an eye, and citizens are continually passing from one country to another, and mingling freely with each other, the reason for the extension of such privilege no longer exists; and I believe that no country has a just right longer to hold out any encouragement to the introducer of a foreign invention by granting to him any exclusive right therein. The moral effect of such a provision of law should not be forgotten. Perhaps we have seen more of it in America than you have here upon the Continent, owing to the greater number of our inventions and the greater number of patents which we grant. While we give no exclusive privilege whatever to the introducer of a foreign invention, there are some countries which do extend this privilege, and there are men who make it a business to carry inventions from one country to another. Now, I know of nothing in connection with patents that has so decidedly an immoral influence upon general business habits as this practice. These persons, some of them our own citizens, and some of them citizens of other countries resident with us, watch the issue of patents from our office, and immediately upon such issue *steal* the valuable inventions—I cannot apply a milder term—and carry them to other countries as mere introducers, to the great injury of the rightful owners. One of our leading attorneys, a few days before I left Washington for this country, told me that but a week before a gentleman came into his office and suggested that, as he had a large practice before the Patent-Office, and was taking out patents for inventors every week, he would like to arrange with him, so that if anything came which was valuable it would be communicated so soon as patented, to be taken to those countries granting privileges to the introducer, and the profits divided. Can one conceive a more immoral practice? I appeal to you, gentlemen, as business men, can you imagine a more vicious and demoralizing practice than this? I am happy to say that the attorney told me he instantly rose, opened the door, and suggested to that gentleman that he should find his way out of the office as soon as possible.

But I proceed to say, thirdly, that I believe the two requirements suggested can be complied with only by establishing a preliminary examination. I do not know but here I shall meet some objection. It seems to be a point upon which some of my

friends disagree. But it appears to me so logically necessary that I can hardly conceive that a man, granting the two propositions that a patent should be granted only for a new and useful invention, and only to the original inventor, can fail to arrive at the conclusion that there must be a preliminary examination; otherwise, how are you to know that you are not infringing upon the public domain by granting the patent? How do you know whether you are granting it to the inventor or to the introducer? You may establish a form of oath for the applicant, but we know that false oaths are sometimes readily taken, and a man who is willing to steal the invention of another will not hesitate long to swear that it is his own. It seems to me absolutely necessary that the granting of patents should be attended by a prior, thorough, searching investigation, to determine whether the invention is new and useful, and whether the privilege is sought by the true and original inventor.

If an examination is necessary, by whom shall it be made? It can be made by the inventor, by his attorney, or by a corps of official experts appointed by the government for that purpose. Let us consider for a moment by which of the three ways it is probable the greatest measure of justice may be secured. I think it will be granted by every gentleman that the more disinterested the tribunal, the more impartial will be its decision. If this be so, the inventor is not the man to make a preliminary examination, and determine whether his invention is new and useful; for if any of you gentlemen have had experience in patent-offices, either in obtaining patents or in granting them, you will probably agree with me that inventors, as a class, very generally fail to see the difference between their own inventions and those of others. It is natural that it should be so—the father is always proud of his child. I think, then, you will concede that the inventor is not that disinterested party who should determine whether he has the right to a patent. Although his attorney is somewhat further removed from an interest in the invention, still, as a matter of business, he must be more or less influenced by the wishes of his client; and in his discussions with that client over the result of his examination, he must necessarily yield, to some extent, to the opinions of the latter. He is working for a fee, and that fee frequently depends very much upon the opinion that he gives. We all know how this comes about. It results from an unfortunate weakness of human nature; and, although we might wish it were different, we are compelled to take circumstances as they are. It seems to me, therefore, that this work should be done by some person more completely disinterested than either the inventor or his attorney. It follows, then, that there must be some body of experts, call them examiners or what you will, some official body of experts, to take this question into consideration and determine between the public on the one hand and the inventor on the other. For we must remember that a patent is somewhat in the nature of a contract, by which, in exchange for the full disclosure of the invention on the one hand, the public on the other agrees that the inventor shall have for a certain number of years a monopoly or exclusive right to its manufacture and use. To determine what is just and equitable between the inventor and the public, what better tribunal can there be than a corps of examiners appointed by the government, and entirely disinterested in the question at issue? Given such a corps of experts, with scientific attainments sufficient to enable them to determine intelligently questions relating to the working of a mechanical or chemical invention, and also such legal knowledge as shall enable them to properly construe description and claims, entirely disinterested in the result, and it does seem to me that we should have reason to expect them to hold the scales of justice evenly between public right on the one hand and individual right on the other, and that their decisions would, in general, be more satisfactory to all parties interested than those of any other body of men. I believe, then, not only that the grant of a patent should be preceded by a prior careful examination, but also that it should be made by disinterested persons appointed for that purpose by the government of the country in which the patent is issued.

This method will also be much cheaper for the patentee than when he seeks the services of a professional expert outside of officials. The cost of patents in the United States, as compared with that in England, bears me out in this assertion. The cost of making an examination in our country is a mere trifle of \$15. (£3.) while in England I suppose it is from £10 to £50, or even £100, according to the reputation of the expert employed. Some members of this congress have had experience in different countries, and can state more accurately the relative cost in each. While the expense of an examination in America is less than in any other country, I believe I am safe in saying the work is performed equally as well, and with as reliable results.

With the provision for official preliminary examination, there should be coupled a liberal system of appeals. An examiner may sometimes err in judgment, and the grant of a patent should never rest upon the decision of one man. Let there be provision for appeal, so that the decision of the first tribunal, if adverse, may be reviewed once or more, and the rights of all will be amply protected by a patent-system as nearly perfect, in my opinion, as can be devised.

But I wish to add, in general terms, that whatever system may be adopted in any country, to be really beneficial it must be liberally administered. A system of pre-



liminary examinations, although judiciously organized, may be so conducted as to become one of the greatest hardships to which an inventor can be subjected. Prussia affords an illustration in point. Prussia has an examining system which might answer every purpose, but is so administered that it is a common saying among inventors in America, that the examination in Prussia is for the purpose of refusing patents for all inventions. And in that country, where it seems to me inventions should be fostered and cherished, and where we might expect the most remarkable results from the scientific and technical knowledge of her people, we find, in fact, the fewest inventions made and patented; perhaps I ought not to say *made*, but certainly the fewest inventions patented. Her inventors seek other countries, where their rights are more generously accorded and their hope of reward has better foundation, while foreign patentees have been taught by the experience of others to shun her patent-office as a delusion and snare.

The full benefit of a patent-system can be obtained only when liberally administered, and by this I mean to include not only liberality in the granting of patents, but also a liberal policy toward the inventor subsequent to such grant. Give the inventor all to which he is entitled, even though the invention should seem small, and then let the judiciary so construe the patent as to fully protect his rights and encourage his efforts. Such a course will be found in the end to be the best, not only for the patentee, but also for the public. The matter of judicial action in relation to patents may be outside the province of this congress, but I cannot forbear an allusion to it in passing, for it must necessarily have an important influence upon the success of a patent-system in any country.

Permit me now to refer briefly to our patent-system in America, for I suppose it will be interesting to you to know something of its workings, although I find less necessity for explanation on my part than I expected. Many of our German friends in this congress appear to have a full understanding of our system, a just appreciation of its beneficial influence, and I cannot commend it more strongly than they have already done. The history of patent-protection in America is almost coincident with our existence as an independent nation. The first American Congress, in 1790, enacted a law for the protection of inventions based upon the principles which I have already suggested. This law was amended from time to time as public interests seemed to demand. It was not until 1836, however, that our system as it now exists may be said to have been established. In December of that year the Patent-Office, with all its records, was destroyed by fire. During the session of Congress that year the patent-law was carefully revised, and a new law enacted which has not been materially modified by subsequent legislation. By the law of 1836 the Patent-Office was completely organized, a corps of examiners established, and all the machinery of our system, as it now exists, put into operation. We may therefore be said to have taken a new departure in 1836, for up to that time the working of the office had been somewhat irregular, the preliminary examinations desultory in character, and the number of patents granted small in comparison with subsequent results. Since 1836 the development of inventive talent and the advancement of the industrial arts among us has been marvelous even to ourselves. The number of patents granted since 1836 is about 140,000. I happen to have in my hand a copy of our OFFICIAL GAZETTE for 1st July, 1873, and I find the number of the last patent of that date to be 140,567. The number of applications for patents has steadily increased from year to year, until it now averages from 20,000 to 21,000 per annum, and the number of patents granted annually is from 13,000 to 15,000. To perform the work of examining this large number of applications, the corps of expert examiners has been increased from time to time, until it now numbers about 100—to wit, 24 principal examiners, and the same number of first, second, and third assistant examiners, together with a special examiner of trade-marks and also of interferences. The clerical force has been correspondingly increased, so that the officials of all grades now employed in the office may be stated in round numbers as about 500.

The bare statement of the number of patents granted since 1836 is sufficient to bear me out in the statement that our system has proved to be a most remarkable stimulant to inventive genius, not only in our own country, but throughout the world. But you will very naturally inquire, how many of these patents are valuable? Of course it is impossible to obtain statistical information that shall be entirely reliable on this point, but my official experience has given me such data that I am enabled to form an opinion approximately correct. I have discussed the matter with others, and have sought information from manufacturers, patentees, and legal gentlemen who have made a specialty of the practice of patent-law, and I think I do not exaggerate at all when I say that one-half of the patents granted in our country may be considered remunerative. Now, I do not wish to be understood by this that one-half of these 140,000 patents have brought fortunes to the pockets of the patentees. They have become remunerative to a certain extent—that is, they have paid expenses and something more. A small proportion of them have become largely remunerative, and the patentees, or their representatives, have obtained large fortunes from them. I think, therefore, it may be said

that the influence of our system upon inventions and inventors themselves have been beneficial beyond all expectation.

But you will also ask, what has been the influence of our patent-system upon the manufacturing interests of our country? I have taken occasion to make some inquiries upon this point also. A short time before I left Washington the Secretary of State sent out to inventors, manufacturers, and others interested in patents, a series of inquiries, among which were some as to the influence of our patent-system upon manufacturing interests of our country. With scarcely an exception, so many of our manufacturers as responded answered that the patent-system was beneficial, beyond all manner of doubt, to the manufacturing interests of the country. It is estimated, both by myself and others who are qualified to judge of this matter, that at the present time from six to seven-eighths of our enormous manufacturing capital is based upon patents, either directly or indirectly. In fact, it is almost impossible to organize a company for manufacturing purposes in America without first securing the control of patents for some valuable invention.

I think, then, that we may be said to have reached this conclusion, that our inventors, patentees, and manufacturers have all been benefited greatly by our patent-system. At the same time the public welfare has been greatly promoted by the general introduction of many valuable inventions, which otherwise would have remained undeveloped, and by the cheapening of many articles by the invention of new and improved modes of manufacture. At the same time we believe the whole world has been benefited by the liberality of our law. We make no distinction between foreign and native applicants, but invite inventors from the whole world to give us the benefit of their inventive genius upon the same liberal terms that we grant to our own citizens, putting upon them no restriction as to time or place of manufacture, or introduction of the invention into public use.

But, gentlemen, while saying this, I do not wish to commend our system above others in all its details. We do not seek to engraft it upon that of other countries; indeed, it seems to me that it would be unadvisable for this congress to suggest for general adoption the patent-law of any one country. But we should be glad if the deliberations of this congress should result in the acceptance of a few principles like our own, and the recommendation of those principles as the proper basis for patent legislation in the different countries here represented.

These principles I have already suggested. Should they be adopted and sent forth to the world with the indorsement of this congress, I believe important reforms may in time result therefrom. But the details of a patent-system should be left to the different countries to work out for themselves.

Gentlemen, I congratulate you upon the assemblage of this congress, and trust that your deliberations may result in substantial benefit to the world. It may be some time before the reforms you seek are secured; but the agitation of these questions may here been inaugurated in such a manner that, if continued hereafter, success must eventually crown these efforts. To this end let me express the hope that you will not adjourn without establishing a permanent committee as the representative of this congress, so that an organization may be created by means of which the discussion of this subject may be continued from time to time until, finally, civilized governments shall become convinced of the righteousness and expediency of the principles here advanced, and there shall be universal recognition of the rights belonging to, and the public benefits conferred by, the inventors of the world.

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#### EXHIBIT C.

#### *Vienna Patent-Congress, 1873.*

#### OFFICERS.

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President: Dr. W. C. Siemens, F. R. S., &c., &c.

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General Secretary: Carl Pieper, C. E., Dresden.

Secretaries: Professor Blake, New Haven, U. S.; F. Kaupé, C. E., St. Petersburg; Dr. Franc von Rosas, Vienna; Professor Exner, Mariabrunn; Dr. Carl Ratkowsky, Vienna; Dr. Rosenthal, Cologne.

Preparatory Committee: Dr. Andre; Professor Exner; Dr. G. Haseltine; F. Kaupé; Dr. F. X. Neumann; Dr. Rosas; Dr. Werner Siemens; Professor Blake; Dr. Herm. Grothe; Hamilton Hill; Dr. Klostermann; Carl Pieper; Dr. Rosenthal; Dr. R. Tannasch; W. Ritter v. Engerth; Dr. Professor Hartig; Dr. Jannasch; C. E. Eugene Langen; Dr. Ratkowsky; Dr. C. W. Siemens; Thomas Webster; Dr. Fr. Weimann.

## MEMBERS.

Ammermüller, Dr., of Stuttgart, manufacturer.  
 Andre, Dr., of Osnabrück, representing the Society of German Engineers.  
 Arenstein, Dr., Vienna.  
 Avery, John G., Spencer, Massachusetts, United States.  
 Aureliano, P. S., representing the Roman government.  
 Baumhauer, Dr. E. A. v., professor and reporter to the government of the Netherlands.  
 Bigelow, Lambert, manufacturer, of Worcester, United States.  
 Blake, W. P., mining engineer, New Haven, United States.  
 Blakey, George, London.  
 Bochkoltz, August, of Vienna, inspector general of the imperial royal priv. state rail-road company.  
 Bode, M., manufacturer, of Vienna.  
 Borszeky, Soma, Pesth.  
 Bocke, F., of New York, engineer and director.  
 Boteler, J. W., Washington, United States.  
 Brecht, T. C., assistant examiner Patent-Office, Washington, D. C.  
 Brewer, Eben, Westfield, New York.  
 Christy, Stephen, London.  
 Codazza, Giovanni, commendatore, representative of the Italian government.  
 Collyer, Robert, Dr., representative of Inventors' Institute, London.  
 Daimler, G., director of the gas-motor factory in Deutz, near Cologne.  
 Diefenbach, royal councillor to the government of Württemberg.  
 Diethelm, Carl, of St. Gallen, engineer.  
 Draxler, Frank, Mobile, Alabama, United States.  
 Egan, Alfred, of Ofen, master engineer.  
 Engerth, W. Ritter v. of Vienna, Aulic counsellor, director.  
 Ewan, M., London.  
 Exner, W. F., Prof., Dr., of Mariabrunn.  
 Fairfield, George A., Hartford, United States.  
 Fraenkel, E., government director of railroads, and reporter to the royal Swedish government.  
 Friedmann, Alexander, of Vienna, engineer.  
 Frolich, Julius, of Landsberg, engineer.  
 Gorz, Joseph, of Mayence, engineer.  
 Gans, Albert, Vienna.  
 Gilgenheimb, Baron of Weidenau, Austrian Silesia.  
 Gottheil, Edward, civil engineer, New Orleans.  
 Gottheil, R., patent-agent in Berlin.  
 Grave, Gustav, Brussels.  
 Groth, L. A., Stockholm.  
 Grothe, H., Dr., of Berlin, engineer.  
 Grunberg, H., Dr., of Kalk, near Cologne.  
 Hall, Henry L., of Chicago.  
 Hall, Thomas, Northampton, Massachusetts, United States.  
 Hammond, Edward, reporter.  
 Hartig, Dr., professor, of Dresden, member of the Saxon patent-commission.  
 Hasseltine, George, LL. D., London.  
 Hatchek, M., Vienna.  
 Hawthoway, C. L., Boston.  
 Hill, Hamilton A., Boston.  
 Hinze, W., master engineer, Wilhelmshofen.  
 Hoffmann, Francis, engineer, Plancher-les-Mines France.  
 Hoffmann, F., of Berlin, architect.  
 Hoffmann-Linka, Max, Leipsic.  
 Hornig, Emil, Dr., of Vienna, professor.  
 Hotchkiss, B. B., of Paris.  
 How, G. H., Cleveland, Ohio, United States.  
 Howie, J. J., of London.  
 Hoppner, Th., of Liegnitz, engineer.  
 Jacovenco, Paul, Odessa.  
 Jannasch, Dr., of Proskau.  
 Jenny, of Vienna, imperial royal professor.  
 Jenoure, A., civil engineer, Ivy-cross, Kew, London.  
 Joy, A. Ch., professor of chemistry, of New York.  
 Karmarsch, Dr., professor, privy counsellor.  
 Karop, Eduard, of Vienna, engineer.  
 Kaupé, Friederich, of St. Petersburg, engineer.  
 Kiddoo, J. B., United States Army.

Klostermann, Dr., professor, of Bonn, attorney to the chief mine office.  
 Kornyei, Eduard, Dr., advocate in Pesth.  
 Kraft, J., engineer of the Rathgeber carriage manufactory of Munich.  
 Kraus, Jacob, Pesth.  
 Kreith, Franz v., Dr., of Vienna, barrister.  
 Langen, Eugen, of Cologne, president of the German Society of Engineers.  
 Lonszky, Adolph, Pesth.  
 Marehet, Dr. Gustav, professor at the Forest Academy in Mariabrunn.  
 Mayet, P., of Berlin.  
 Mehlis, G., director of the Cyclop machine-shops, Berlin.  
 Meigs, Joe V., Massachusetts, United States.  
 Metaxa, Themistokles, Ritter von, consul-general, representing the royal Greek government.  
 Mintzer, S. J. W., Dr., of Philadelphia.  
 Munson, Henry T., examiner Patent-Office, Washington, D. C.  
 Muller, Moritz, one of the editors of the "Engineering," London.  
 Myers, A. G., engineer, director of the Society for the Promotion of American Industry, New York.  
 Nagel, A. L., of Hamburg, manufacturer.  
 Neumann, F. X., Dr., of Vienna, professor.  
 Neumann, A., of Weidenau, Austrian Silesia.  
 Neupauer, Joseph, Dr., advocate of the superior court of Vienna.  
 Neuwirth, J., of Vienna, author.  
 Nieberding, government counsellor in the office of the chancellor of the empire, in Berlin.  
 Offermann, Carl Ritter v., factory owner in Brunn.  
 Ohm, C., representative of the Hungarian Land Industrial Society of Pesth.  
 Oncken, Aug., Dr., of Vienna.  
 Ott, Adolf, of Bern, representative of and reporter to the Swiss government.  
 Paget, C. O., of Vienna, engineer.  
 Paget, Eduard, of Vienna, manufacturer.  
 Paget, F. A., of London, engineer.  
 Paget, H., of Vienna, manufacturer.  
 Phillips, W., (Thom. Bradford & Comp.,) Manchester.  
 Pieper, Carl, of Dresden, civil engineer, international patent-bureau.  
 Pisling, Dr., of Vienna, author.  
 Pollman, Ignaz, captain, retired, Tulln.  
 Raetke, Heinrich, patent-agent in Berlin.  
 Ratkowsky, M., Dr., jurist prefect at the imperial royal Theresianum of Vienna.  
 Raymond, R. W., Dr., of New York.  
 Raynor, W. H., Wilson Sewing-Machine Company, Ohio, United States.  
 Reifer, J. J., engineer, of Winterthur.  
 Reitlinger, Edmund, Dr., imperial royal professor of Vienna.  
 Remington, Samuel, Ilion, New York.  
 Reuleaux, Dr., professor, of Berlin, privy counsellor.  
 Reuleaux, Carl, of Berlin, engineer.  
 Ritz, Louis, Cincinnati, Ohio, United States.  
 Rollins, J. G., of London.  
 Rosas, Franz, Dr. Edler v., of Vienna, counsellor in finance.  
 Rosenthal, Dr., of Cologne, representing the Society of German Engineers.  
 Ruhlmann, Dr., professor, of Hanover.  
 Rouston, F. S., of Lincoln.  
 Sachsenberg, G., factory owner of Rossau on the Elbe.  
 Schmidt, Eduard, Dr., of Vienna, civil engineer.  
 Schupp, Wilhelm, of Carlsruhe, ministerial counsellor.  
 Schwarz-Senborn, Freiherr v., director-general of the World's Exposition.  
 Schwndler, Louis, superintendent electrician of government telegraph, Calcutta.  
 Scott-Moncrieff, W. D., Glasgow.  
 Siehmon, A., of Pesth, engineer.  
 Siemens, Werner, Dr., of Berlin, factory owner.  
 Siemens, William, C. L. E. R. S., of the board of directors of the Institute of Civil Engineers, London.  
 Somerfield, Wilh., editor of the Oesterr. ichischen Oeconomist, of Vienna.  
 Steding, Alexander, Moscow.  
 Steelberg, A., editor of the Industri-Tidende and patent-agent in Copenhagen.  
 Steinbeis, v., Dr., president of the central office for trade and commerce in Stuttgart.  
 Steiner, Julius, Techniker of Vienna.  
 Suess, Friedrich, imperial royal professor.  
 Szabel, Albert, Ritter v., of Olmutz.  
 Traun, Heinrich, Dr., of Hamburg, manufacturer.

Vischer, of Steittgart, counsellor of state.  
 Wagener, G., Dr., representative of the exposition commission for Japan.  
 Wagner, Lad. v., of Pesth, professor.  
 Walcher-Moltheim, v., imperial royal consul-general in Paris.  
 Walkhoff, F., of Hamburg.  
 Wanzer, R. N., Canada.  
 Warth, Albin, manufacturer, of Stapleton, United States.  
 Webster, Thomas, Q. C., of London, reporter to H. B. M. government.  
 Wheeler, C. Gilbert, Ph. Dr., professor, of Chicago, United States.  
 Weinmann, Fr. L., Dr., of London, reporter of the English exposition commission.  
 Weiss, C., engineer of the locomotive-works of Krauss & Co., Munich.  
 Whitney, Buxter, Dr., Massachusetts, United States.  
 Wilder, G. S., Chattanooga, Tennessee, United States.  
 Winkelmann, E., Vienna.  
 Wirth, Franz, editor of the *Arbeitgeber*, of Frankford-on-the-Main.  
 Woods, George H., New York, United States.  
 Wolf, R. L., Vienna.  
 Wolff, supervising master mechanic of Oldenburg.  
 Zimmermann, J. F., of Hanau, manufacturer.

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#### EXHIBIT D.

*Resolutions adopted at the Congress held at Vienna, on the 4th, 5th, 6th, 7th, and 8th of August, 1873, on the question of international patent-protection.*

I. The protection of inventions should be guaranteed by the laws of all civilized nations, because—

a. The sense of right among civilized nations demands the legal protection of intellectual work.

b. This protection affords, under the condition of a complete specification and publication of the invention, the only practical and effective means of introducing new technical methods without loss of time, and in a reliable manner, to the general knowledge of the public

c. The protection of invention renders the labor of the inventor remunerative, and induces thereby competent men to devote time and means to the introduction and practical application of new and useful technical methods and improvements, and attracts capital from abroad, which, in the absence of patent-protection, will find means of secure investment elsewhere.

d. By the obligatory complete publication of the patented invention, the great sacrifice of time and of money, which the technical application would otherwise impose upon the industry of all countries, will be considerably lessened.

e. By the protection of invention, secrecy of manufacture, which is one of the greatest enemies of industrial progress, will lose its chief support.

f. Great injury will be inflicted upon countries which have no rational patent-laws, by the native inventive talent emigrating to more congenial countries, where their labor is legally protected.

g. Experience shows that the holder of a patent will make the most effectual exertions for a speedy introduction of his invention.

II. An effective and useful patent-law should be based on the following principles:

a. Only the inventor himself, or his legal representative,\* should be entitled to a patent.

b. A patent should not be refused to a foreigner.

c. It is advisable, in carrying out these principles, to introduce a system of preliminary examination.

d. A patent should be granted either for a term of fifteen years, or be permitted to be extended to such a term.

e. Simultaneously with the issue of a patent a complete publication of the same should take place, rendering the technical application of the invention possible.

f. The expense of obtaining a patent should be moderate; but, in the interest of the inventor, a progressive scale of fees should be established, enabling him to abandon, when convenient, a useless patent.

g. Facilities should be given, by a well-organized patent-office, to obtain in an easy manner the specification of a patent, as well as to ascertain what patents are still in force.

h. It is advisable to establish legal rules, according to which the patentee should be

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\* This was understood to include the nominee or authorized agent of the inventor.—TH. W.

induced, in cases in which the public interest may require it, to allow the use of his invention to all suitable applicants for an adequate compensation.

i. The non-application of an invention in one country shall not involve the forfeiture of the patent, if the patented invention has been carried into practice at all, and if it has been rendered possible for the inhabitants of such country to purchase and make use of the invention.

k. In all other respects, and particularly as regards the proceedings in the granting of patents, the congress refers to the English, American, and Belgian patent-laws, and to the draught of a patent-law prepared for Germany by the Society of German Engineers.

III. Considering the great differences in present patent-administration, and the altered international commercial relations, the necessity of reform is evident; and it is of pressing moment that governments should endeavor to bring about an international understanding upon patent-protection as soon as possible.

IV. The congress empowers the preparatory committee to continue the work commenced by this first international congress, and to use all their influence that the principles adopted be made known as widely as possible, and carried into practice.

V. The committee is likewise authorized to endeavor to bring about an exchange of opinions on the subject, and to call, from time to time, meetings and conferences of the friends of patent-protection.

VI. To this end, the preparatory committee is hereby appointed to act as a permanent executive committee, with power to add other members to their number, and to appoint the time and place for the next meeting of the congress, in case such a meeting should be considered necessary for the promotion of the foregoing resolutions.

BARON VON SCHWARZ-SENBORN,

*The Honorary President of the International Patent-Congress.*

WILLIAM SIEMENS,

*The President of the International Patent-Congress.*

#### EXHIBIT E.

##### *Universal Exhibition, 1873, in Vienna.*

At a meeting of the executive committee, (appointed by the International Patent-Congress to carry out the resolutions of the Congress, passed on the 4th, 5th, 6th, 7th, and 8th of August, 1873, with power to add to their number,) held on Saturday, the 9th of August, Baron von Schwarz-Senborn, honorary president of congress, in the chair.

Present—Dr. William Siemens, president of the congress; Th. Webster, Q. C.; Mr. Hamilton Hill, Mr. Eugen Langen, Dr. v. Rosas, Mr. Dr. Jannasch, Dr. H. Grothe, Dr. Weinmann, Dr. jur. Rosenthal, Syndicus Dr. Andre, Hofrath v. Engerth, Professor Blake, Mr. Carl Pieper, C. E. It was resolved:

1. That the Hon. J. M. Thatcher, Mr. B. B. Hotchkiss, and Mr. S. Remington, of the United States, be added to the committee.

2. That Baron von Schwarz-Senborn be president of the executive committee, whether residing at Vienna or elsewhere.

3. That Dr. William Siemens be requested to write a preface or introduction to the proceedings of the congress, to be dedicated to Baron von Schwarz-Senborn. (Dr. W. Siemens acceded to this request.)

4. That Mr. Carl Pieper, C. E., of Dresden, be the general secretary of the executive committee.

5. That Dr. v. Rosas, of Vienna, be treasurer of the executive committee.

6. That Dr. Rosenthal, of Cologne, and Dr. v. Rosas act as special assistants to the general secretary, for the publication of the proceedings.

7. That the members of this committee residing in foreign countries constitute special committees of their respective nationalities, with power to add to their number, to carry out the resolutions of the congress, each local committee to be empowered to enroll members, call meetings, and collect subscriptions of one pound sterling, or upward, per annum, to be accounted for to the general secretary and treasurer, and to do such acts as may be necessary for carrying out the resolutions of the congress.

8. That the president and general secretary prepare by-laws, to be submitted to a general meeting for approval.

BARON VON SCHWARZ-SENBORN.

CARL PIEPER, *General Secretary.*