[illegible] AMENDMENT

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Before the Hon. Comm'r of Patents.

IN THE MATTER OF THE

EXTENSION OF MORSE'S PATENT.

Argument for the Applicant.

The invention secured by the patent of 1846—the extension of which is now sought—is but a part and parcel of the magnetic telegraph as invented by Professor Morse. It is for a combination of certain elements, most of which had been invented by others, which was necessary to complete his previous invention, patented in 1840.

When Morse first conceived the design of a telegraph which should record intelligible characters at a distance, he supposed the galvanic impulse could not be sent through a wire but of a few miles in length with sufficient force to enable his recording instruments to work with efficiency, still that force might be sufficient to break and close a new circuit at the extremity of the first; so that a new galvanic

impulse should be created by means of a battery placed in this second circuit, which should be equal to and simultaneous with that created by the closing of the first circuit, and thus on from station to station, until the end of the line was reached, where the battery of the terminal circuit would work the register which should record the message. This invention lies at the basis of the improvement which was consummated by the invention patented in 1846.

Subsequent discoveries and inventions revealed the fact that the distances between these relay circuits might be much greater than was at first supposed, and that they might each be hundreds of miles in extent. Still the same principle is even yet observed wherever the distance is too great for a single circuit. The relay circuits upon this or some other plan carry forward the impulse to the end of the line, where a register worked by what is now known as a "local circuit" records the dispatch.

The idea of this local circuit at the end of the line is fairly embraced in Morse's patent of 1840. There is no evidence that he then conceived the idea of making that circuit as short as it is now generally made. But it was well known that the shorter the circuit the more powerful would be the working of the register. Morse certainly contemplated making it so short that it would work effectually. Beyond that there was no invention; it was only experimental adaptation.

Suppose after 1840 some one else had applied for a patent for this local circuit at the end of the line, would the Office have granted it? Would not the reply have been that Morse's invention covers that very ground, so far as the question of patentability is concerned?

This, then, together with his register, alphabet, and some other matters of less consequence, constituted Morse's invention patented in 1840.

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Still it had some great defects. It only provided for sending messages to the end of the line. In order to provide for sending a message to a way station, a distinct independent line would be necessary from the point from whence the message was to be sent to that at which it was to be received, which would cause a great multiplication of lines in order that messages should be sent to any considerable distance without being registered frequently by the way, and then re-sent.

Another inconvenience was found in the fact that distinct lines were necessary for return messages, as the information could only be transmitted in one direction through these relay circuits.

To overcome both these difficulties required the invention which was patented in 1846. This patent consists of three claims. Two of these are for original contrivances, which would be considered of some importance, were it not for the vast superiority of the third, which causes the others to be disregarded. This is the only one which I shall now consider.

This main claim is merely a combination of old contrivances. Some of these had been invented by Morse, as shown in his previous patent. None of these are of course new in this patent.

The contrivance of breaking and closing one circuit by means of another, and which in the patent of 1840 was only applied to circuits lying along one main line, or located at its extremity, is here used to drop messages by the way or to send them off in a lateral direction, without in any manner interfering with their flight along the main line to its terminus.

Whenever it is desirable to fix a lateral circuit, or to establish a branch line that shall be worked from the initial point of the main line, a receiving magnet is placed, the coils

around which are so connected with the conducting wire of the main circuit that the galvanic current transmitted through that wire passes through this coil as it goes, and thus operates on this magnet in precisely the same manner and at the same time as on the receiving magnet at the end of the line. It may thus be made to break and close a circuit at that point, just as it does at the terminal local circuit, either for the purpose of working a registering apparatus at that point, or of transmitting the same message which is passing along the main line to any distance in a lateral direction, and which thus

"Spreads undivided, operates unspent."

And more than this: As it is found that galvanism can be transmitted through long lines without a resort to relay circuits, the same wire which conducts the current in one direction allows it to return in the other, so that one single wire supplies the local circuits along the line, and those at the end let the messages come from either direction. This is the sum and substance of the patent of 1846.

This contrivance was not made until 1843 or 1844, but it was placed upon the first line of telegraph that was ever constructed. The patent was applied for within two years thereafter, so that it did not become public property.

Now, it is said that both Wheatstone and Davy invented local circuits, which were worked in combination with a main line long before Morse's invention of the subject-matter of his patent of 1846; that these circuits were operated in substantially the same manner as Morse's, and that Morse only substituted one contrivance in place of another well known equivalent. In proof of this assertion, we are cited to the English patent of Cooke and Wheatstone, of December 12, 1837, and that of Edward Davy, of January 4, 1839.

If this be true, the patent of 1846 is certainly invalid. The substitution of any device in place of its well known equivalent is never a ground of patentability, unless some

new principle is thereby brought into operation. Some special effect must be produced by the one, which is not found in the operation of the other, in order to render the substitution patentable.

But if this patent is invalid, there must have been at least two erroneous decisions of this Office, as this patent has been once re-issued. The examiner who, since this application was made, has reported that the combination of the main and local circuits, as shown in this patent of 1846, was new and patentable, was also in error. But more than either, the Supreme Court of the United States, in the case of O'Reilly *vs.* Morse, (15 Howard 121) has committed an egregious mistake, for they have there deliberately and unanimously decided that this patent of 1846 was valid. Surely your Honor should hesitate before coming to a different conclusion.

But by an examination of these patents of Wheatstone and Davy, we shall be led unavoidably to the same conclusion as the Office and the Supreme Court have reached. Wheatstone did not use his local circuit for ordinary telegraphic purposes, but only for sounding an alarm. It was not a lateral local circuit at all, but was merely intended to be used at the end of the line like the terminal local circuit shown in Morse's patent of 1840. Whether lateral local circuits could be constructed on that principle I will not attempt to say, but surely not without other important contrivances than those described in his patent of 1837.

It is true he speaks of sending messages to points on either side of the main line, but it is only by having independent wires starting from the initial point and terminating at the point where the dispatches are to be received, in a manner entirely analogous to that which would be necessary to effect like purposes by means of Morse's invention patented in 1840, as above shown.

The same observations will apply to Davy's contrivance patented in 1839. The local circuit is at the end of his line, and no provision is made for placing it anywhere else. He contemplates the use of relay circuits just as Morse does in his first patent, but nothing in his specification evinces the least intention on his part to provide lateral circuits analogous to those of Morse as patented in 1846.

Neither of these contrivances, therefore, come in any manner into interference with that patented by Morse in 1846, but they both do, to some extent, interfere with his patent of 1840. Now who was the first inventor of this interfering contrivance?

Wheatstone's invention, under our law, can only take date on the 12th of December, 1837, the day of the enrolment of his patent; and Davy is more than a year later. Now Morse's own testimony given in the French and Rogers' suit was by agreement made evidence in this case. In that testimony (see the case of French *vs.* Rogers, vol. 1, page 168 –'9,) Professor Morse says, "that he completed the invention patented in 1840 as early as the Spring of 1837." As this evidence is uncontradicted, it is conclusive, and settles the priority in favor of Morse.

If Morse, therefore, in his patent of 1840, had included a general claim to breaking one galvanic circuit by means of another—which might have been done then, and which may still be done through a reissue—he could have effectually prevented either Wheatstone or Davy from using their respective inventions of local circuits in any part of the United States without his permission. Instead, therefore, of either Davy or Wheatstone having anticipated any invention which has been patented by Morse, both their inventions have been anticipated by him, so far as they occupy analogous ground to his. Morse is, therefore, the inventor of the electro-magnetic telegraph, which was first embodied in his

patent of 1840, and perfected and made what we now find it by the invention patented in 1846.

Steinhiel's contrivance, erected between Munich and Bogenhausen, in 1837, was in no way similar to that of Morse. It was a needle telegraph; did not use the attractive power of the electro-magnet, and had nothing analogous to the local circuit, either terminal or lateral. It is not relied upon by the contestants.

The question of patentability is therefore disposed of.

As to its utility there can be no doubt. It is admitted by the counsel now conducting the case for the contestants.

Is the invention valuable and important to the public, and how much so?

That it is valuable is self-evident.

At present I shall consider the telegraph generally. I shall presently inquire into the relation of this patent to the whole subject of the Morse telegraph, and to other telegraphs. (See Mr. Kendall's reply to interrogatories 18 and 19; Field's reply to interrogatory 4; Robinson's reply to interrogatory 6; Gamewell's reply to interrogatories 6, 7, 8.)

As to diligence, also, the evidence is superabundant. It shows the greatest energy and perseverance on the part of Morse. (See especially the answer of French to interrogatory 2, and that of Kendall to interrogatory 21.) There is no testimony on the other side to contradict.

We come now to the only remaining question—that of adequacy and compensation.

How much has been received by him? The law (act of 1836, §18) requires the patentee to furnish a statement under oath of his receipts and expenditures.

This has been fully done. It is enough, unless contra-

dicted; which has not been attempted, except as will be mentioned hereafter.

But we have not relied alone on this statement. Mr. Kendall kept the amount of sales of patent rights, and his evidence proves the statement filed to be correct. (See reply to int. 10.)

What was the fair value of these stocks? We have set them down at what they would now be worth if the patent is not extended. There is no proof that they are undervalued. This, at most, is all that should be charged against us on that account.

The aggregate receipts, as shown by our statement, amount to.....	$351,468 86
Expenses.....	181,269 55
Net receipts.....	$170,199 31

But this amount is much too great, for two reasons:

First—Morse took these stocks because he could obtain nothing else. (Mr. Kendall in reply to int. 15.) He should be charged only with what they could then have been sold for, as it would be unjust to require him to hold them at his own risk, and then charge him with their value after the telegraph had proved a success.

Mr. Kendall, in reply to int. 15, says, that at the time they were received they would not have brought more than 15 per cent. of their par value. This, then, is all that can justly be charged against him on that score.

Suppose, that in order to sell, he had been compelled to take his pay in lottery tickets. If, when he applied for an extension, he should say, "My tickets all drew blanks, and therefore I have received nothing;" would this position be sustained?

Or, if they had drawn prizes amounting to much more than the nominal value of the tickets, should he be charged with the whole?

He should, in either case, be charged with just what those tickets would have brought if placed in the market at the time they were received, and no more.

Let us now apply the same rule here. A small portion of these stocks have been sold for cash, at a higher rate than an average of 15 per cent. These we have regarded as cash at the price received, and have so charged ourselves. But the greater portion is still held by us. These, at par, amount to $585,050. At 15 per cent. they would be worth $87,757.50 only.

Now, in our statement of receipts and expenditures. we have charged ourselves with the gross receipt of $154,795, as being the present value of the stock which had been received for interests in these patent rights prior to the extension in 1854. Of this gross sum, $68,845 was paid to Mr. Kendall, leaving a net sum of $85,950 for Morse.

The amount of these stocks which each of these parties received, if estimated at 15 per cent. of their par value, would have been in round numbers $49,000 for Morse, and $39,000 for Kendall. Subtracting from the amount with which we have charged ourselves on account of this stock, the sum which that stock would have amounted to at 15 per cent. of par value, and we have..... ..... $85,950

Subtracting..... 49,000

Leaves an overplus of..... $36,950

Second—Again, we have charged ourselves with dividends received on this stock to the amount of..... $130,544 83

Add to this..... 36,950 00

Makes an aggregate of..... $167,494 83

All this, as I think I shall show, is an overcharge which, although carried into the statement, may be rectified in the making up of your Honor's decision.

But besides all this, an error has been pointed out to your Honor in the statement of the receipts, amounting to $44,583, which has been charged twice over by mistake. These corrections being made, will leave the net receipts, as shown in the following computation:

Dividends which should not be charged.....	$130,544 33
Excess in value of stock.....	36,950 00
Error.....	44,583 00
Total.....	$212,077 33
Reported net receipts.....	$170,199 31
Excess in value of stocks to Kendall:.....	39,000 00
Excess in expenditure by Morse.....	21,000 00
	$230,199 31
Subtracting.....	212,077 33
Leaves.....	$18,121 98

The $21,000 is a charge of $1,000 per annum for the time while Morse was perfecting himself as an artist. I think this is not a fair charge. The $39,000 is the deduction that should be made on the value of stocks paid to Kendall, if the price is to be rated at 15 per cent. of their par value. Adding these to that side of the account will correct the error.

If, therefore, the price of the stocks is reckoned at 15 per cent. of their gross amount, and if we strike out the charge for dividends received, and then correct the error resulting from the double charge of $44,583, the entire amount received by Morse as net profits on both patents is only $18,121.98. The rest has all resulted from his investments.

Suppose Morse had sold for cash, and had loaned the money at interest, would he have been charged with that

interest? If he had invested it in stocks, should he be called on to account for the dividend? May not this be regarded as such an investment in stocks?

It seems, then, that nearly all the net receipts with which we stand charged result not from the invention, but from a judicious or fortunate investment. Our lottery tickets drew prizes.

Had Morse sold his stocks for what they would bring at the time they were received, the purchaser who was willing to risk his money would have reaped all the advantage resulting from the rise in value of the stocks, as well as from the dividends which Prof. Morse has done.

But we are told that if Morse put in his patent into a partnership concern, in which others advanced the necessary funds, and apportioned his interest in stock, this is not a sale of his patent to the company, and he should account for the present value of his interest, and also for the dividends received. That may all be true, but were such the facts of this case?

Mr. Kendall is an uncontradicted witness on this point. In answer to interrogatory 15, he says these transactions were absolute unconditional sales.

Now, how is it attemptod to show that our account of receipts and expenditures is incorrect? Not by contradicting one single item of it, but by saying:

1st. That F. O. J. Smith made $500,000 out of one-fourth interest in the invention, and therefore Morse must have made more than twice that amount out of the ten-sixteenths still held by him. But the evidence shows that the amount given by the American Telegraph Company to Smith was not alone for his telegraph interest. They had been at war with him for years, and they gave this sum to buy their peace. Morse would not have levied black-mail in that manner.

2d. Again, it is said that in 1852 Morse made a sworn statement that he had then paid Mr. Kendall $200,000 in *cash and stocks.* But if this was mostly in stocks which have been proved to be worth only $15 on the $100, this sum dwindles down into little more than $30,000. The burden is on them to show how much of this was cash, as they are in this respect assuming the affirmative.

I think, therefore, the net receipts may fairly be set down at $18,121 98. There may, however, have been some errors in computation, as I have taken less pains to be accurate than to establish the principle upon which the computation should be made.

But suppose these net receipts to be $200,000, if you please—which is more than ten times what I think they can justly be reckoned at—and I think I can still show a case in which the propriety of this extension will be entirely clear.

The Examiner, in his report, has alluded to the fact that the receipts and expenditures of the two patents of 1840 and 1846 are so mingled that they cannot be separated. This results from the necessity of the case.

The two patents cover in fact but one single invention. They have never been used separately. The invention patented in 1846 was made before that of 1840 was ever put into actual use. The one is supplementary to the other, and was an improvement upon it. It might have been patented as an "additional improvement," but was rightfully made the subject of an independent patent. (See the decision of the Supreme Court in the case of O'Reilly *vs.* Morse, 15 Howard, 121–2.)

The law does not command impossibilities. We have done the best we could, and I think I can make it plain that we have done enough to satisfy the requirements of the statute or the rule of the Office.

Mr. Kendall, in answer to interrogatory 18, says he regards the value of these two patents as being in the aggre-

gate not less than six or seven millions of dollars, and that he should divide this amount equally between the two. Our statement of receipts and expenditures is made out upon that principle. The two are regarded equal, and the receipts and expenditures apportioned to each accordingly.

Allowing the net aggregate receipts, then, to be $200,000, the proportion charged against this patent would be $100,000. In that case one half the merits of the two patents should be attributed to this.

When the patent of 1840 was up for extension, the case was treated as though the patent of 1846 were of no consequence. The net receipts from the whole invention were all charged against the patent of 1840, and the entire merits of the telegraph were conceded to it. This, as I shall presently show, was the same in effect as the plan now proposed.

The aggregate net receipts were about the same then as we are supposing them now, owing to the fact that there was then a claim against F. O. J. Smith for $70,000, which subsequently proved unavailable. This is at least a set off to the net receipts since 1854. No connections of the kind above mentioned were made in 1854.

If we were to pursue the same course in the present case —that is to say, charge all the net receipts to this patent, and credit it with the whole merit of the telegraph invention, we shall be coming to the same substantial result as now proposed. The net receipts will be doubled, but the importance and value will be increased in the same proportion.

Or if we were to suppose the value of the patent of 1840 to stand towards that of 1846 in the proportion of 99 to 1, then, although the utility of the invention embraced in this patent will be comparatively small, the net receipts justly chargeable against it will be small in the same proportion. They would be only $2,000 in all, and would bear the same proportion to the utility as though the whole value of the invention were included in this patent.

If the telegraph as a whole had been patented at once, and if that patent were now up on an application for extension, would a list of nett receipts, amounting to $200,000 in all, be a sufficient objection to the granting of the extension sought? If not, then the present objection is not well taken. The rule which applies to the whole is equally applicable to the parts which go to make up that whole.

I say, then, to the contestants in this case, Fix the ratio of value between the two patents of 1840 and 1846 at just such a figure as you please. Make them both equal, or make either of them a hundred or a thousand times as valuable as the other. Just in proportion as you increase or diminish the value of that which we now seek to have extended, just in that same proportion do you increase or diminish the net receipts which would rightfully be charged against it. But you do not in any respect change the rule that should control this case, nor vary the right to an extension which the applicant has under the law.

That right depends upon the ratio which exists between the value of the invention and the amount of net receipts. This is the same in the case of the one-half or of the one hundredth part of an invention as it is in the case of the whole. If the whole patent would properly be extended as an entirety, it should be equally so if that extension could be properly sought by a fraction at a time.

To show the views of the Office in regard to this ratio, I beg leave to refer to one of the most recent cases of any magnitude where an extension has been granted—that of Hyatt for an improvement in vault-lights, extended in November last.

The amount of invention in that case was not extraordinary. It consisted in constructing the vault-light of several small lenses instead of one large one, which was previously in common use. The invention proved useful, and although the net sum of $98,000 had been received by the inventor,

that liberal amount of profit was not allowed to stand in the way of the extension sought.

Commissioner Bishop, in giving his decision in that case, took occasion to say:

"It is comparatively rare that an invention is made, which proves to be of any substantial advantage to the public. When such a thing does occur, the inventor should be allowed a large and munificent reward; not only on account of the benefit which he may have conferred upon his race, but that his brilliant success may stimulate other inventors to renewed and increased exertion."

The net receipts in the present case might have been many times greater than they really were without prejudice to the right of extension, if the principles which governed in the case just cited are to prevail here. If we suppose the invention patented in 1846, to be only the one hundredth part in value of the whole subject matter of both patents, will it not still compare advantageously with the vault-light patented by Hyatt? And yet, the net receipts which should upon that supposition be charged against the invention would, at most, be only $2000, while in Hyatt's case it was $93,000. Surely so far as the practice of the Office is concerned, there can be no occasion for hesitation as to the course which should be pursued now.

But we are told that, although Morse's invention may be sufficient to sustain his patent, it amounts to but little after all. That the battery, the conducting wires, the magnets, and the contrivances for breaking and closing the circuits were not only well known separately, but that they had been previously used in combination.

This is all true; but what then? It only amounts to this: That certain principles and contrivances were previously known, of which Morse availed himself, in giving to

humanity a new and most valuable faculty—that of speaking at a distance. A new power of nature had been discovered, which was most curious and surprising. Morse gave that new and hitherto dumb agent the power of speech. He subjugated it to his will, and it became one of the most reliable and submissive servants of man. The Ariel of the drama has almost ceased to be a poetic fiction, and is becoming a reality, with powers in some respects far surpassing the most futile imaginings of the poet.

Suppose none of the brute animals had ever been taught to labor—that they only existed in wild untutored harmlessness to excite the wonder of the curious, or to figure in the descriptions of the naturalist. If then some Morse should arise on this side the Atlantic, who, after years of patient toil, privation, and discouragement, should finally discover the means of subjecting the ox to the yoke and the horse to the harness and the saddle, what man, especially what American, with head and heart aright, would hesitate to acknowledge the greatness of the boon that had thus been conferred upon the human race? And when the general voice of the world was recognizing the debt of gratitude which was due to this discoverer, when kings and emperors were paying homage to his genius, and were vieing in a spirit of voluntary justice to crown him with distinction and with honors, and even with more substantial marks of favor, when the pharisaical pride of the old world had yielded, and the jealous prejudice of her tyrants and her aristocrats had been forced to admit that something new and good had in fact come out of this republican Nazareth, would some of our O'Reillys or our Eddys be found willing to appear before your Honor on an occasion like this—and suggest that this supposed Morse was entitled to but little credit after all—that he had not created or even first discovered either the ox or the horse? It would be easy for them to show that these very animals had previously existed; that they always had eyes and ears and muscles, and powers of

being useful, as well before as since their being thus domesticated and subjugated.

We do not profess to have created or discovered this wonderful agent, but we do lay claim to the credit of having first put it in harness and caused it to do our bidding—to speed on messages of love, or to carry the tidings of woe—to hasten or to stay the movements of an army—to arrest the criminal or to give warning of the conflagration—to enable the railcar with its priceless burthen to move with safety, or to stop its progress when leading to inevitable destruction; and finally, to give to the man of business the means of doing in one day more than he could otherwise accomplish in two, thus lengthening out his life in that proportion so far as it is to be reckoned by events rather than years.

These are some of the benefits we claim to have conferred upon the world. And when the history of this wonderful discovery shall hereafter be written—when Morse shall be placed by posterity alongside of the greatest of human benefactors, I trust your Honor will be found among the number of those who recognized and appreciated the magnitude and inestimable importance of this new power with which he has endowed our common humanity.

I have no disposition to detract in the least from the merit of those men of science who have furnished so many of the materials which have been used by Morse and other inventors. To them the world owes an infinite debt, which it will hardly ever attempt to pay. The discoverers of philosophical truths are constantly conferring inestimable benefits upon mankind, which deserve our warmest gratitude, and should receive some more substantial reward.

But under our system of government, with the notions now entertained by our legislators and our people, such a

result is hardly practicable. The mathematician, the chemist, the naturalist, or other man of science must rely on something besides direct, adequate pecuniary compensation for his labors and his discoveries. Our laws make no provision for rewarding any but the *inventor*. That we cannot in that manner compensate the former class, is no reason why we should hesitate to do so to the latter when a proper occasion arises.

Nor is the amount of ingenuity or of originality displayed by an invention the sole criterion by which to measure this intended compensation. Where the benefit conferred upon the public is very great, the smallness of the amount of invention is no obstacle to our recognition of the merits of the inventor, nor to the pecuniary reward which he will be permitted to reap therefrom.

Tried by the standard suggested by the contestants in this case, even the art of printing, the most useful and wonder-working invention that has been made within the historic period of the world, would be of trifling moment. The Chinese practised a species of printing long before the Christian era. The idea of type for stamping or printing letters or words, or even sentences, was not new. Signet rings had been used for thousands of years. Seals, by which the unlettered barons of Europe affixed their names to written instruments, and even pictures engraved on plates, with texts of Scripture attached, with a view of having the impression transferred to paper by printing, were known and practised long before the time of Guttemberg.

What, then, did he invent? Simply the preparation of type in separate letters, which might be prepared in quantities arranged in words at the pleasure of the compositor, and then struck off into thousands of copies of books, and pamphlets, and newspapers.

Analyzed by the chemistry attempted to be applied to this

case, the invention of Guttemberg would seem a very small matter, and yet how has it changed the whole face of the world! Not only has literature been made to feel its effects, but also the sciences and all the arts of the civilized life. All the institutions of mankind, civil, political, and religious, have been shaped and changed under the wizard touch of this poor German inventor. And yet if he himself could now arouse from his slumber of four centuries, and appear in this presence, and if your Honor were constituted the appropriate organ to express in some suitable way the public appreciation in regard to the utility of his invention, would he not be met by the present contestants with a protest against any substantial recognition of the value of his invention? To doubt this would be to cast an insinuation upon the disinterestedness of the motive which now brings them here. The same patriotic and unselfish desire to prevent an excess of public gratitude would operate just as strongly, and with the same result in that case as in this.

But to come nearer to our own time and country. What has rendered the name of our own Fulton immortal? He did not—as in my childish ignorance I once supposed—invent the use of steam as a motive power. He was not the first even to apply that power to the propulsion of boats. John Fitch, and perhaps some others, were many years his predecessors in that effort.

What, then, did he do? Little else, in fact, than to attach the wheel to the boat as a simpler and more practical means of propelling it. The wheel so attached was substantially the same as that which had long been used as a common water-wheel to propel machinery, and Fulton merely placed the moving power at the other end of the apparatus. Instead of providing for the water to strike upon the wheel, he proposed to cause the wheel to strike the water, and then availed himself of the result.

Fitch provided the means of moving by steam a series of

side-paddles, something after the manner by which an Indian paddles his canoe. He succeeded in running some five miles an hour, which is quite as much as Fulton accomplished in his earlier efforts.

But Fulton had conceived the idea of a simple, strong and practical contrivance for the propulsion of boats—one not liable to be deranged and inefficient. And although in recent times the contrivance proposed by him has been to a great extent superseded by the screw propeller, still to this day he is justly regarded as the father of steam navigation. He paved the way to the most brilliant success, and if he was now here asking a recognition of his merits, which it was in the power of the Commissioners of Patents to grant, can there be any doubt as to what would be the result? Has Fulton invented more than Morse? Has his invention been of more practical utility to the world?

I have said that Fulton did little else than to use a combination of the common steam engine and the common water-wheel for the propulsion of boats. This observation should be qualified. He also exerted the energy and perseverence necessary to carry his idea into practical execution. The man who has made a valuable invention has only commenced his labor. He has not accomplished the most difficult and disagreeable part of his undertaking. It is the policy of the law to compel him to bring it into public and general use. This often calls for rarer qualities than are necessary in making the invention itself. The fortitude which no difficulties can appal—the faith which no discouragement can change into doubt—the firmness and energy which even poverty and derision can never induce to abandon the great idea which urges him forward as with the power of inspiration to its consummation, these were the crowning glory of Fulton They were equally conspicuous in Morse.

Without these qualities, no talents will secure success. For the want of them, how many of the noblest plans and

inventions have wholly failed. To call them into effectual exercise is a leading purpose of the patent laws, which hold out the prospect of pecuniary profit as dependent upon the effectual introduction of every invention into public and general use.

How pre-eminently these qualities evinced themselves in the life and history of Professor Morse, your Honor will perceive by referring to the testimony. After the great idea had possessed his mind in 1832, how entirely were all the energies of his soul and body bent upon its final consummation! Laboring at his profession for the sole purpose of obtaining the means of perfecting his invention—purchasing his food at a provision store, taking it home at night and preparing it in his room, in order to economise the scanty means thus provided, surely, if he had proved unsuccessful he would have been justly regarded as a monomaniac. In proportion to these efforts and sacrifices—in proportion to the obloquy of a failure, should be the splendor and the reward of his final success.

And then, at a later day, when his invention, though still imperfect, had begun to assume more body and shape, we see him urging his plans upon the attention of the incredulous; presenting his ideas before the learned bodies of this and other countries; submitting to all the unpleasantness of soliciting from Congress the means of testing the truth of his great idea; bestowing one-sixteenth of his invention upon one friend for scientific aid, one-eighth on another for pecuniary assistance, and one-fourth upon one whom he supposed a reliable agent and coadjutor, in order to secure his services. And when disappointed in this supposition, we find him practically giving one-third of all that remained to secure the necessary services of another counseller and agent in whom he could confide. Everything else was made subservient to his one great idea of securing this invention, and successfully introducing it into general use. In this endeavor he has at last been eminently successful. But the effort

has required nearly all the gross receipts resulting from the invention, and he now presents himself before your Honor, claiming that under the laws of his country he is fairly entitled to the boon he now asks. If ever an inventor could fairly claim an extension of his patent, that man is Professor Morse, in the prosent instance.

But we are told that we have treated this subject as though the whole invention of the telegraph were the work of Professor Morse alone, whereas, there are several modes of telegraphing without a resort to either of the contrivances patented by him. The evidence shows that nearly all the telegraphs now in existonce are working under the Morse patents.

But suppose the case were different, and that the "House" or the "Bain" telegraphs or those of any one else were equal to Morse's, and were no infringements of his patents. Or suppose the mode of telegraphing by sound be practiced without infringing upon any patent, and that it was common property, and superior to any other mode of telegraphing; does it not follow, that the contestants have no reason to object to this extension? The patent, if extended, will stand in no one's way, and all that has been said against the mischiefs which will thence result falls to the ground.

But I am altogether of a different opinion in relation to the scope of Morse's patents. At all events, if those *patents* are not broad enough to render these other contrivances for telegraphing infringements, the *inventions* themselves are so, and such I believe to be the opinion of the contestants as evinced by their conduct.

I know the eighth claim of the reissued patent of 1840 has been held by the Supreme Court (four judges against three) to be invalid, as being too broad. This claim is to the use of the motive power of electro-magnetism *however, de-*

veloped, for marking or printing intelligible characters, signs or letters at any distance.

If it were ever proper to question the decision of that august tribunal, it would be in cases like this, where there was a bare majority of one in favor of that decision, and where the dissenting judges were sustained by such a logical and powerful argument as that presented by Judge Grier in this case. (See 15 Howard, 124.)

But without intimating a doubt on this subject, it will not be improper to suggest that this decision merely declares the eighth claim to be invalid—not that a different claim would be so, which was still sufficiently broad to render these other modes of telegraphing all infringements.

Columbus was the discoverer of this continent, though he may not have seen it at but one single point, or known what was beyond or around on any side. Multitudes of followers made discoveries, but all were subordinate to that of the great Genoese. They availed themselves of the information which he had given. They followed in his footsteps. Give them each the merit which is his due, but let none of them be placed on a level with the "Old Admiral" himself, nor lay claim to any right as an independent original discoverer.

Morse was the Columbus of the telegraph. Like his great prototype he launched boldly forth into the chartless ocean which separated the known from the unknown. He has not given to mankind a new world, but he has given to the old world a new property. The earth itself is changed, and has a nervous system spreading all over its surface. Human nature is not what it was before this discovery. Let no second Americus succeed in robbing him of his just glory. Let the subsequent discoveries of no Cabots or De Sotos or Hudsons attempt to elevate themselves to an independence of the great original.

Does any one doubt that the discoveries of Morse led the

way to those of his followers as much as did that of Columbus? Has it not pointed out and suggested to House and Bain and the inventors of telegraphing beyond the track they were to pursue, as much as did a knowledge of the existence of this continent render that of the valleys of the Mississippi or the Hudson, or even all North America, a second discovery? The rule is founded on reason, and the same principle runs through both cases.

I insist, then, that Morse is the first inventor of the magnetic telegraph generally—that all the subsequent inventors have followed in his footsteps — have availed themselves of the benefit of his discoveries, and are therefore rightfully subordinate to him; and that in estimating the value of his invention it is therefore proper to take into consideration the entire value of the whole magnetic telegraph.

What though his patent was so framed that it might be evaded by subsequent inventors? It is not the value of Morse's *patents*, but the value of his *invention*, that we are now considering. The law which authorizes these extensions (act of 1836, §18) contemplates that they shall be granted when the patentee has "failed to obtain from the use and sale of his *invention* a reasonable remuneration for the time, ingenuity, and expense bestowed upon the same." If, therefore, Morse's invention was really such that the others were properly subordinate to it, he is entitled to be considered as the inventor of the whole, whatever be the nature of the patents granted to him, and should be treated accordingly. As he has not been adequately remunerated, we claim that the extension now sought should be granted to him.

But we are told that Morse is to derive no material benefit from this extension, having parted with all his interest therein, except that in some unimportant portions of the United States. If this were really so, I admit it would

present a very strong argument against the extension which is intended for the special benefit of the inventor. We should, in such a case, have to rely upon the interest still held in Florida, Texas, and California, and in the telegraph stocks still held by him, which it is shown are mainly dependent for their value upon this extension, for showing the benefit that would thence accrue to the inventor.

But what is the evidence upon this point? Mr. Field is the first witness in regard to it. In answer to cross-interrogatories 12 and 13, he says, in substance, that he is under the impression that the American Telegraph Company had agreed to give him an additional $30,000 in stock in case the patent was extended.

Now, even if this sale included the extension, he has $30,000 dependent upon that extension, exclusive of his interests in Florida, Texas, and California, and in the stocks still held by him. But for reasons which I will give presently, I contend that there is nothing in this whole testimony showing that the extended patent was included in this sale. The reason for giving $30,000 additional in case of the extension will appear in the answer of this witness to the 16th cross-interrogatory. The whole stock of the company would be worthless without such extension.

The only other testimony on this subject is that of Morse himself, in answer to interrogatories by the contestants. No foundation was laid for the introduction of this secondary testimony, but as it was not objected to it is therefore valid.

He stated that he had sold all his interest in the patents granted to him, except in the States of Florida, Texas, and California. But such a sale does not include his interest in an extension which had not then been granted.

On the question thus presented we have the benefit of

some judicial decisions. In Woodworth *vs.* Sherman, 3d Story R., 171, 173, it was held that the assignee or grantee under the original patent does not acquire any right under the extended patent, unless such right is expressly provided for by contract.

A like decision was afterwards made by the Supreme Court of the United States in the case of Wilson *vs.* Rousseau, (4th Howard, 646); see also, Curtis on Patents, 105 and 111.

Now, I do not find a word in any of the testimony in this case tending to show that the extended patent was included in the contract, except the fact doubtfully expressed by Mr. Field, and already alluded to and explained. There is, therefore, no solid foundation for the position taken by the contestants in relation to the sale by Morse of this extended patent.

But we are reminded that this patent, if extended, will stand directly in the way of others wishing to engage in the establishment of new telegraphic lines. Such a position is somewhat at variance with the testimony of John J. Speed, the counsel, witness, and coadjutor of the contestants, who, after having intimated an intention to engage in a telegraphic enterprise, declared that the extension of this patent would have no influence in preventing him from so doing. (See his replies to cross-interrogatories 6 and 9.)

But I am willing to admit that this patent will limit to some extent the rights and privileges of others. This is one of the necessary consequences of the institution of property of any description. Your house or your farm is a monopoly. Others have no right to take possession of them without your permission, however convenient or agreeable it might be to them to do to. It would be just as convenient for the builder of a new line of telegraph to seize upon the neces-

sary wire, or other material, without payment, as to use Morse's invention upon the same terms.

There is one school of French philosophy which is founded upon the maxim that all property is robbery; and there are many persons in all countries to whom the idea of a community of property, or a general division every Saturday night, would seem agreeable, at least, if not proper. But the general voice of the civilized world in all ages has been decidedly in favor of this species of monopoly—of giving to every man the exclusive enjoyment of all that his labor, his economy, his talents, or his good fortune has secured. This idea is the parent of industry, of frugality, of public and private wealth, of general improvement and progress, of civilization itself. The savage who has no idea of property in real estate cuts down the tree for the sake of the fruit; he never sows, for others would reap; he never saves, for others would enjoy.

Now, if there is any species of property to which, in preference to all others, one has a natural right, it is that which he himself has created. That which, but for us, would have had no existence, is more clearly ours than that which has become ours by mere transfer. Our natural right to our children is therefore superior to that which we can justly claim in our servants. Is not a creation of the mind as clearly ours as a creation of the hand? He who gives existence to an art, that but for him would never have been known, has a natural right of property therein as much as he would have in a house built entirely by his own labor. The one is no more a monopoly than the other.

But we are told that this invention of the telegraph would soon have been made had Morse never lived; that other minds in this country and in Europe were busy with this general idea, which had ripened into various inventions be-

fore the knowledge of Morse's contrivances had been given to the world, and that these subsequent inventors (being really original) have the same natural rights in their creations as Morse has in his. So the nations whose respective navigators have each discovered the same island hitherto unknown, may all be said to have the same ground for claiming it by right of discovery. But by the well-settled rule in such cases the first discoverer has a perpetual preference, however small the space of time by which his priority is determined. In all these cases some one must be preferred, and where the equities are equal, he who is prior in time has a superiority in title.

The fact that the same invention would probably soon be made by another is the chief justification for refusing to any inventor the *perpetual* enjoyment of the fruits of his own genius. If it were certain that but for Morse the invention of the magnetic telegraph would never have been made, his patent title should never have been limited, but should have descended to his children to the latest posterity.

The ground taken by some for justifying such a limitation is, that the Government may rightfully require the abandonment of this species of property, after a certain number of years, as a consideration for its protection during that period; but this is hardly a solid foundation on which to ground this right. Does the law protect property in a patent any more than in a horse, or in a plantation? Experience demonstrates the deplorable fact that such protection is vastly less effectual in the former case than in the latter.

It is the duty of the Government to secure us in the enjoyment of our property of every description. This is one of the cardinal purposes for which it is organized, and it has no right, *merely* on account of this protection during a certain number of years, to require its confiscation to public use forever afterwards.

But inasmuch as many persons may be the original inventors of the same thing, and may thus all have a just claim to its enjoyment, the law gives to the first inventor the exclusive property therein for fourteen or twenty-one years. During that time it is as much his own as any species of tangible property. The title is quite as just, and there is no more of a monopoly, within the objectionable meaning of that term, in the one case than in the other.

Away, then, with this agrarian idea of taking away the rights of an inventor, merely because it would be convenient and pleasant for others to enjoy the fruits of his labor, his ingenuity and his perseverance. It is argument of the brigand. It is the justification of the robber.

I am aware that there are some inconveniences growing out of the existence of patents for inventions. And accordingly many men of just minds have been in favor of giving to each inventor a pecuniary equivalent for his property, and then dedicating it to public use. But the difficulty of awarding a just equivalent for an untried invention—and still more, the utter impossibility of satisfying the expectations of an exorbitant and often morbid estimate generally found to exist in the mind of every inventor, would render every scheme of that nature altogether impracticable. The inventor is therefore given the exclusive use of his invention for a limited time that he may test its merits and derive a compensation therefrom, proportional to its value and its utility to the public.

I need not discuss the justice and expediency of this policy on the present occasion. It is enough that it has been adopted by the country, and is interwoven with all its interests. Its foundation is laid in that great instrument which has made us a nation. It early became the subject of favorable legislation by Congress. A bureau was created, and

this magnificient temple of art has been erected for its accommodation.

The records of this Office exhibit the results of this policy. The protection it has afforded to inventors — imperfect as it has been — has communicated an impulse to the inventive genius of our fellow countrymen, which is increasing from year to year in a rapid geometrical progression. The number of patents annually sent forth from this Office is greater than that granted in any other country on earth. Nowhere else are the energies of the human mind so thoroughly aroused. Every field of human exertion is carefully explored. Automatic machinery is taught to do in an expeditious and perfect manner the labor which once required the constant guidance of the most practised skill and the most sleepless intelligence. Ends are attained which were formerly beyond the reach of any human effort, however untiring or energetic. The deep secrets of nature have been extracted from their darkest recesses, and man is constantly rising to a new and higher order of being.

Over this auspicious, this wonderful transition, you, sir, have been called to preside. The author of the most useful and astonishing invention ever recorded in the annals of this Office has placed himself before you to ascertain what favor the meritorious class to which he belongs, may expect to receive from this great centre around which they all revolve. I submit his case, confident that the liberal and enlightened views which have caused the establishment and continuance of this institution, and which have given it all its efficiency, may still be continued in its administration.