10. Patent No. 2,455,266, November 30, 1948, E. Nudelman, for "Children's amusement device"; held invalid in *Crest Speciality* v. *Trager et al.* (341 U. S. 912, 89 U. S. P. Q. 175, Apr. 23, 1951).

The patent was held valid and infringed by the Court of Appeals for the Seventh Circuit (87 U. S. P. Q. 139, 1950).

The decision of the Supreme Court is a one-sentence per curiam decision which does not mention any references. The court of appeals in sustaining the patent mentions only 1 patent, which had not been cited by the examiner and stated generally that the others were too far afield; the district court, which also sustained the patent, mentions 8 other references 4 of which were those which had been cited by the examiner.

STATEMENT OF MAX FOGIEL, INVENTOR, NEW YORK, N. Y.

REVISED PATENT LAW NEEDED

The authors of the Constitution delegated to the Federal Government the power to grant patents to any inventor who is willing to make public the nature and details of his invention. They realized that if the Nation is to pursue a state of continnous progress it will be necessary for the general public to have access to the ideas and details of inventions which are conceived by the individuals who possess the rare gift of inventive thought. In this manner a given field of art is continuously advanced since the individuals connected with the field can carry on from where others have left off and are not required to duplicate work which has already been performed. The fathers of the Constitution were aware that it would be necessary to offer some form of award in order to induce the inventor to disclose his product to the public. For this reason, and based upon the power mentioned, the Federal Government has issued to qualified inventors patents which at the present time give the inventors or their assignees the sole right to manufacture a given product or use a given process for a period of 17 years.

During the past few decades the research field has greatly expanded, giving rise to a corresponding increase in the number of patent applications. The staff of application examiners employed by the United States Patent Office, however, has not increased proportionately and this has caused the condition where the number of applications arriving at the office each day far exceeds the number that can be processed by the available staff. This unbalance has resulted in such an enormous backlog of work at the Patent Office that the time between filing the application and actually granting the patent may take a number of years. During this period the inventor has no legal monopolistic rights with regard to his invention and for this reason the Patent Office retains the nature of the invention in absolute secrecy until it publishes it in the Gazette and Patent Record. Very often the inventor, after having filed his application at the Patent Office, submits his invention to firms who appear to show a possible interest in it. Many firms who find that the invention may be profitable proceed to manufacture it without compensating the inventor in any way. Independent inventors, initially unaware of this fact, may become deeply disappointed by this experience and cease to develop any additional ideas that they may have. Occasionally the inventor cannot reap any profits from his invention even after the patent is finally issued, for the ones who have manufactured the invention during the time that its patent was pending before the Patent Office have flooded the market to the extent that the product of the invention is no longer in demand. Thus anyone familiar with the invention can produce and market it and the inventor has no legal right to any compensation or royalties until the time that the patent is actually granted. In view of the lack of legal protection during this period the inventor is often inclined to retain the nature of his invention secret until the patent is actually isued. This has an adverse effect upon the public for it does not enjoy the benefits of the invention at the earliest date possible.

Increasing the Patent Office budget for the purpose of increasing the staff to the required amount is probably too much to hope for, and therefore, it is suggested that the patent law be revised allowing the inventor after the patent issued to recover damages retroactively from anyone who manufactured the invention for gainful purpose without acquiring legal rights from the inventor. The present law does not permit any such recovery which would be subject to the condition that the inventor had previously warned the defendant of the pending action before the Patent Office and retroactive to the date the defendant

I have been in the development of machines and devices all my life and have constant contact with patent attorneys. Each one has deplored our present patent situation and my own experiences have often been so discouraging as to border on bitterness. Some years ago I had a talk with the late Senator Tobey from our State and was informed that a movement was underway but so far nothing became of it. The Globe article just about describes the condition correctly as you explained it. If we are to have any kind of justice for all then the patent situation requires prime priority.

Some years ago Cornet magazine published an article wherein the author claimed that the general opinion of the people is that patents are stolen by the larger corporations or otherwise laid away unused to protect their own manufacture. The writer of this article went on to explain that this is not so at all and expounded the wonderful opportunities for the inventor. This author certainly was off the track and did not know his own answers. You know that the small inventor without means is at the mercy of everyone else and the only justice is the amount of money available.

Will you, therefore, let me cite one example to show how close you struck the mark. As a foreword I might mention that, some years ago, I was called by a large corporation to build a special machine and after I finished this successfully I was given charge of developments and built 7 other machines of various kinds for them in a little over 2 years. This first machine cost the corporation $6,000 and I was called into the general manager's office and told about the expenses. However, the same manager later said to me that their company had already spent nearly one quarter of a million dollars to build a machine which would do this kind of work. It was all right for them to expend this amount but I was supposed to scratch the pennies after others failed. Then it became a matter of assigning the rights or leave the employ. After moving over 200 miles with the family during depression this was in my opinion not much better than blackmail. From there on I decided to try my own luck as soon as possible and here is what became of it:

About 5 years ago I was employed in a nearby city in Massachusetts. A contractor came to the shop to ask if we could build a machine for some particular purpose which up to that time had to be done by hand. After looking the situation over, I advocated a design which had all the advantages required, but both my employer and the contractor ridiculed the idea as not workable. Although I considered every angle and explained the reasons the customers replied that some officials of his company considered the idea as crazy.

To me this was a challenge and I told them that I would bnild a machine of my own and let him try it out. I felt at the time that my earlier developments so far had brought me no reward aside from a rather slim pay envelope and I was about 60 years old then. I did not want to depend on any social security and the like but felt that I would prefer to stand on my own and that this was my chance.

From my home some 16 miles distant, I commuted daily so that my spare time begins about 8 o'clock in the evenings. I had built myself a small shop just enough to experiment and for almost 2 years I went to work in heat and cold every night to build the machine. The shop then had no conveniences such as water or heat. When the work was finished, I asked the contractor if he would like to try it. He did and in a few days returned so pleased that he ordered six more machines. Other people saw it work and orders came in so that I decided to farm some of the work out. Patents were applied for in 1950, and while I had just recently an office action in favor the final patent is still out after 5 years.

One of our elected officials has a son who practices law and he wanted to take care of the patent matters through his relative in Washington—a patent firm. He explained that it would be advisable for me to have him attend to these matters since there would be a possibility that I could be sued in all 48 States and he wonld take this on for 40 percent and interest manufacturers and promote the article. However, he turned out very incompetent and not at all familiar with such procedures. Instead of waiting for an infringement search he put a long article in a statewide magazine—a practical invitation for everybody to copy the idea. Since I had not heard any reply from him for several months regarding the application, I inquired and received a letter from him deploring the negligence of the Washington attorneys. After awhile I wrote to this firm myself and received a reply that they had no knowledge of any application having been submitted to them.

It would be my suggestion that patent laws should be so revised that:

1. A claim, once granted should be uncontestable.

2. That the patent office should have a larger staff and allow enough pay for competent men who can judge new ideas in their proper light and relations. It has been known that some examiners take a viewpoint which would void many patents if applied to other claims, most of which are primarily based upon some knowledge already on hand.

3. There should be no need of lawsuits to establish the rightful claims and it should be the work of some commission to judge the facts in the light of experienced personnel, well paid judges whose decision should be final. Now we need civil lawyers, patent attorneys, experts and witnesses which are far beyond the means of the average inventor and therefore without justice. I believe that most inventors would be glad to pay a yearly fee to retain their rights if their rights were really safeguarded by the patent office itself.

4. It should be illegal to shelve patents taken over by firms to keep better ideas off the market in order to protect their often obsolete devices.

However, it appears that you are very well familiar with the patent situation since you have sized up this condition with good understanding of the needs and protection the inventor requires. Since almost every inventor is a poor businessman by nature so much more should the laws stand in his favor against encroachment.

STATEMENT OF ROGER S. HOAR, PATENT ATTORNEY, MILWAUKEE, WIS.

I hope that this present letter, may not be too late to place three ideas before your committee.

The first of these ideas is that a great deal of the present logjam in the Patent Office appears to be due to captious questions of form raised by patent examiners against patent applications which are not rejectable on anticipations. It is my opinion that cases in which this occurs could be sped up by a rule to the effect that, if an application is sufficiently clear for an examiner to be able to act upon it on the merits, no objection of indefiniteness can be made without the permission of a supervisory examiner.

Or, alternatively, it could be provided that a simple traverse of such a rejection would be referred to a supervisory examiner.

Some such provision as this, coupled by a firmly expressed and firmly enforced policy of the Commissioner to crack down on captious examiners, should do much to relieve tbis very annoying, delaying, and time-consuming epidemic.

One of the men from here who attended your hearings, reported that someone at the hearings (whether on or off the record, I do not know) made the semi-humorous suggestion, which struck a responsive chord with those present, that the third paragraph of section 112 of the Patent Act be reenacted with the addition "This time we meant it."

As you know, the paragraph in question reads:

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

That paragraph was intended to mean exactly what it says, and to entitle the inventor of a new combination of functions to claim it broadly as such, by adopting the form prescribed.

But this provision is being emasculated in practice by the examiners rejecting claims directed to a combination of means, even though these claims distinguish functionally from the prior art, unless they also distinguish structurally. This deliberate ignoring of the words "without the recital of structure" the examiners justify by contending that the claims do not "particularly point out and distinctly claim the subject matter which the applicant regards as his invention," as required by another paragraph of the same section.

In other words, we are right back again confronted with the same old ground for rejection, functionality, which the third paragraph of section 112 was intended to eliminate, but now called by a new name, indefiniteness.

So may I suggest that the Congress establish that the third paragraph of section 112 means what it says, by amending that paragraph by prefacing it with the words "Notwithstanding anything else in this section contained,".

They are not the answer of the Patent Office officials either, as a matter of fact, but these officials are willing to do anything, including even the undesirable increasing of Patent Office fees, in order to obtain necessary moneys. If Patent Office appropriations were increased sufficiently, the proposed increase in fees would be totally unnecessary.

When the matter once more arises, anything you can do to obtain additional appropriations for operation of the United States Patent Office will be greatly appreciated. Even with the President's stringent budgetary program, here is an agency which really requires and deserves additional funds. These funds should be provided by a direct appropriation and not through an increase in the Patent Office fees. It is understood that, should the fees be raised, there is absolutely no assurance that the additional revenue from fees would, in fact, be appropriated to the Patent Office from the Department of Commerce's general fund into which they would go upon receipt. Therefore, until it is possible to press for additional Patent Office appropriations, it would be appreciated if you would do everything possible to defeat any bills providing for an increase in Patent Office fees.

STATEMENT OF THOGER G. JUNGERSEN, INVENTOR, SUMMIT, N. J.

THE AMERICAN PATENT SYSTEM

Gentlemen, our courts used to respect our Government's obligations, such as patents issued for new and useful inventions. This respect created a tangible incentive to gifted individuals all over the world; and every worthwhile invention was patented in the United States. This wealth of knowledge laid the foundation for virtually all of our industies, creating employment and prosperity for all of our people.

There is no longer an incentive in a United States patent for individual inventors. To them a patent on an important invention is generally a liability rather than an asset. Today most United States patents are good only so long as they are not contested in our courts. The winners in such contests are those, like our giant corporations, who have unlimited funds to destroy the validity of a patent, if the patent is something they want. The major portion of the expense of such litigation, on the part of the giant corporations, is borne by the public, as it comes from money that would otherwise be paid in taxes. The inventor or small enterpise, however, must pay their share out of hard-earned capital or savings.

Our Government is now operating the world's greatest gambling institution—our Patent Office—in which the chances of winning are indeed slim. This is much at variance with the intention of our forefathers who created the Patent Office to benefit the American public, and not for the benefit of unscrupulous patent vultures destroying industrial progress and faith in our Government.

We are told about our Government's fight against monopolies and yet our courts, by taking it upon themselves to overrule the Government's own experts in patent cases on matters about which the courts know little or nothing, are destroying our only natural check upon real industrial monopolies in this country, a strong and respected patent system.

Large industries do not need patent protection, they just take over the new inventions made by individual inventors after the inventors have spent their labor and savings developing something new and useful. A patent means nothing to large industries; it is only an obstruction readily overcome with tax money and litigation. It is no longer a question of honor, right, or justice.

True, patents can also be misused to create industrial monopolies harmful to progress. For example, we find that our giant corporations take out an abundance of patents. An analysis will show that by far the majority of such patents cover only minor details of developments on their present products and occasionally something new or an improved version of old products, which if invented by some outsider could prove embarrassing to their old products. Such patents are generally shelved and only used to exclude new enterprises from entering their field of business. Thus, these patents do not benefit the general public by creating new jobs, but instead restrain progress.

Of course a number of very important inventions are created in the research laboratories of such corporations, but we must not forget that most of these giant industries and their products were originally born from individual inventors in home workshops throughout the world. Most of them are here today only because of the incentive promised by our Government in the United States patent laws.

prove beyond any doubt that he used prior to the inventor's application. He has done nothing whatever to deserve other public consideration and therefore no one else should benefit from such disclosure of a knowledge which otherwise might have been lost with its originator without benefiting the general public.

We should learn from other countries where patents are not invalidated because of prior use, unless such prior use is published or is really public knowledge for others to profit by, that is, no one should be able to invalidate a patent because he finds someone who comes into court and claims that he used the process before or has produced similar products. If his claim is a valid one, it should be made in the Patent Office, where all prior uses and disclosures are examined before a decision is made to issue a patent or reject the application. All issues of the validity of patents should be handled exclusively by the Patent Office and not by nontechnical courts. A time limit should be placed upon actions seeking to declare a patent invalid. There should be a 1- or at most 2-year statute of limitations, after which, no one may attack a patent's validity. There should preferably be an extension of the term of the patent from the present 17 years to 20 years; for if such a statute of limitations is enacted, financing of many inventions inevitably will be delayed until the statute has run.

Such changes in our patent laws would destroy the incentive for unscrupulous and often false claims of prior invention through the use of so-called experts, who may shape their testimony to the size of the offered fee, rather than, as it is intended to assist the nontechnical judges in determining highly complicated engineering, electronic, and other technical questions in a just manner.

We should look upon invention, not as a contest for genius, but from a practical point of view, as it is done in other countries where the governments recognize their own patents and obligations to those contributing to industrial progress.

The only good patent system is one which creates as many profitable jobs as possible. It makes no difference whether an invention is created by great genius on extremely complicated matters, or whether it is created by an ordinary person on a technically insignificant gadget. If it is new and can be sold, it contributes to industrial progress, science, or useful arts, and it should be entitled to protection under our laws. All of us, regardless of our occupation, will profit from such inventions.

Perhaps we do not realize it, but even a very small invention has far-reaching effects. Miners produce the ore from the earth, railways or trucks take it to the mills to be processed or refined, and it goes on to the factory for fabrication. Lumbermen cut trees to be made into pulp and paperboard, which in turn makes the box for the part, salesmen all along the line get work, the shoemaker, the barber, the insurance agent, and countless others all get work because of one simple little "insignificant" gadget.

The entire Nation's economy is affected by every usable and salable invention.

What better test of invention can be found than the fact that the invention was new to the public and because of exploitation of the new idea created new jobs and prosperity? Was that not exactly the intention of our farsighted statesmen when they wrote our Constitution? They provided that—

"The Congress shall have power—to promote progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

In our patent laws we find ample protection for honest people, but ethics have changed to such an extent that our nontechnical Justices of the Supreme Court of the United States destroy most of the patents that come before them, without realizing the fact that by their action they destroy the very foundation for progress of this industrial Nation. The late Mr. Justice Jackson of the United States Supreme Court warned, in dissenting to a decision of that Court holding a patent invalid, that "the only patent that is valid is one which this Court has not been able to get its hands on." We must never forget the fact that virtually all of our modern education and industrial progress stems from the foresight of the great statesmen who formulated our Constitution.

Our copyright laws' promise of exclusive rights to authors, encouraged authors and publishers to spend time and often fortunes to collect and publish the wealth of knowledge and information now used to educate our people. We would not have had our present law, chemical, technical, or medical libraries had it not been because of the incentive promised of exclusive right to publish the work of the authors.

Likewise, our patent laws' promise of exclusive rights to inventors caused gifted individuals throughout the world to disclose their secrets for the common good of our people. Without such incentive we could not have had the wealth of

every specimen of a patented plant is grown from a piece of the original patented plant. Thus, even after the plant patent has expired, no one can cultivate the new variety of plant unless he can get a living piece of it from the patentee or someone who obtained it from the patentee. If the plant patentee has kept his patented plant to himself, raising it only on his own farms or in his own orchards, the industry is still at his mercy after the patent has expired. If he has lost commercial interest in the plant, and allowed all specimens thereof to die, society loses the patented plant forever, and it is immaterial whether the plant patent has expired or not.

The plant patent, of course, is effective in assisting the patentee to commercialize his invention. It establishes the identity of the patented variety, which is useful in litigation and in preventing litigation. And it teaches a workable procedure for asexually reproducing the plant, so that those having a specimen thereof in their possession can multiply it to obtain crops as large as they desire. While this is a convenience, the techniques of asexual reproduction are well understood by horticulturists. They enable the patented plant to be grown and commercially used; but they do not teach how to create the plant.

An investigation should be made to ascertain whether any patented plant varieties have become extinct, and whether any plant varieties on which the patents have expired are still being monopolized or restricted by their patentees.

There is need for a survey to ascertain whether patented plants become cheaper and more abundantly available after expiration of the patents thereon; and for that matter, whether the subjects of utility and design patents become more abundantly available after the patents expire.

Patented plants should not be permitted to become extinct, since later discoveries may make them valuable.

Hypothetical example 1.—A new and distinct variety of sugarcane is created, which is immune to a disease ravishing the sugar plantations. It replaces present varieties and the disease becomes extinct. Thereafter, plant inventors create another variety of sugarcane, which gives a higher yield of sugar. Since the disease apparently has disappeared, the new variety is not tested for resistance thereto. After the new, high-sugar variety has made the disease-resistant variety commercially impractical, obsolete, and extinct, the same disease, or a mutation thereof, may appear again. The cane-sugar industry might be saved by returning to cultivation of the disease-resistant variety; but, alas, it is extinct.

Hypothetical example 2.—A new plant is created, characterized by a flower of unusual appearance. It is patented. A chemist obtains his doctor-of-philosophy degree by isolating and chemically identifying a new chemical found in the roots of this plant. No use is known for the new chemical. The demand for the new flower disappears, and the patentee therefore allows it to become extinct, even though his plant patent has not yet expired. Thereafter, subsequent pharmacological research indicates that the chemical from the roots of the plant may be medicinally active. The chemical is tested and proves to be a potent and reliable cure for a disease scourge of man. But, alas, the plant which produced the chemical is extinct.

The recent discovery of high medicinal potency in Rauwolfia, a plant known for thousands of years, shows the undesirability of allowing any cultivated plant to become extinct. Hexuronic acid was synthesized and chemically identified years before vitamin C was isolated and proved to be the cure for scurvy. Not until an attempt was made to patent vitamin C was it realized that the new medicine was nothing but the old laboratory curiosity—hexuronic acid. See *In re King* (107 F. (2d), 618; 43 U. S. P. Q. 400; 27 C. C. P. A. (Patents) 754 (1939)).

We should consider whether the perpetuation of patented plants should be insured by amending our plant patent law to provide that every plant patentee must deposit a living specimen of the patented plant with the United States Department of Agriculture before he abandons cultivation of the patented plant, or before his patent expires, whichever occurs first. The various agricultural experiment stations of the United States Department of Agriculture could then propagate the plant in sufficient quantity for research purposes, and to make specimens available at modest cost after the patent expires.

No comparative law data on this subject is available, because the United States is the first and only country to have any commercial experience with a plant patent system.

I recommend that an ad hoc committee of experts in horticulture, plant research, and patent law be appointed to investigate whether the progress of science and useful arts would be advanced by amending the plant patent law to prevent the extinction of patented varieties of plants.

masses can dress in the same styles as the rich. A workable system of monopoly in clothing would create possibilities of stratification, regimentation, discrimination, and segregation distasteful in a democracy. The rich could set themselves off from the rest of us by their exclusive clothing, much as the German junkers in the days of the Kaiser set themselves apart from the common people by their military uniforms.

Hence some will advocate that any statutory endorsement of the Stein doctrine should contain a proviso denying copyrightability to articles of clothing.

There is a provision in the plant patent statute somewhat analogous to such a proviso. Plant patentability is denied to tuber-propagated plants, e. g., potatoes, presumably because the tuber portion, necessary to propagate this kind of plant, is a basic food commodity.

Objection is sometimes voiced to the idea of replacing design patent protection by copyright protection for utilitarian articles, on the ground that copyright gives the proprietor the benefits of a monopoly without any examination of his right thereto. I disagree. Registration of a copyright merely records the proprietor's claim that he has a monopoly. His right thereto is examined by the courts whenever he attempts to assert the monopoly. In this, the court is assisted by the defendant in his efforts to exonerate himself. The present wholly inadequate examination of design patent applications in the Patent Office safeguards the public interest far less than the interparties examination of the merits in court in copyright cases. In the present state of affairs, unlitigated design patents are entitled to practically no presumption of validity; and that is just about what the courts accord them.

5. Improving the administration of our patent system

(*a*) *Patent Office search facilities.*—The presumption of validity to be attached to an issued patent must be commensurate with the thoroughness of the search of the prior art made by the patent examiner in acting upon the patent application. At present, it is impossible for the examiner to make an adequate search, because the patents are classified according to a scheme which has been made obsolete by the enormous increase in the number, variety, and complexity of modern inventions. Two alternatives appear. The first is to abandon searching altogether by the patent examiners, and conform our patent system to our copyright system, so that only contested patents are examined on their merits, and then only in court in adversary proceedings. This would mean that patents would be published chronologically in the order in which they were filed, and it would become virtually impossible to locate the patents relevant to any specific construction or invention. The Patent Office immediately would become almost worthless as a storehouse of information; for information is worthless unless it is so systematically classified that all the relevant art can quickly be obtained.

If, on the other hand, an adequate classification system is perfected, it would become relatively easy to examine patent applications on their merits. In such event, the public should have the benefit of the expertise of the examiners in the Patent Office in rejecting nonpatentable inventions, and in helping the patent attorney to mold the patent application into best shape, so that the published patent document would be of maximum value to industry.

Hence, the second alternative is to appropriate substantial sums to modernize the patent classification system and then to reclassify all the issued patents, preferably with the aid of automatic sorting and classifying machinery.

(*b*) *The discrepancy will remain between the standard of inventiveness applied in the Patent Office and that applied in the courts.*—The Patent Office desires to publish patents, in order to disseminate the information contained in them. When in doubt, the Patent Office always has allowed the patent application, and will continue to do so. Denial of the patent destroys the property in the invention; whereas allowing the patent gives the patentee an opportunity to commercialize it. Patent prosecution is normally ex parte, and the patent examiner does not have the zeal to deny patentability which characterizes an accused infringer in court.

When a court passes upon a patent, it does so by hindsight. Because of the rapid progress in technology, and the wide dissemination of information, many inventions which were startlingly novel in the mechanisms employed and dramatic in the beneficial results obtained at the time the invention was made, appear obvious years later. In general, a patent is not litigated unless the defendant has good reason to believe that the patent is invalid, or unless the patentee has been unreasonable in his method of commercializing the invention, so that the infringer has more to lose from respecting the patent than from fighting it.

STATEMENT OF LAWRENCE C. KINGSLAND, PATENT ATTORNEY AND FORMER COMMISSIONER OF PATENTS

It was indeed a disappointment to me that my other commitments prevented my attendance at the conference hearings from October 10 to 12.

I feel that one of the most important matters to be considered is a more complete classification of both domestic and foreign art. While I was Commissioner of Patents, a survey was made to determine the necessary manpower for a thorough classification. It was found that it would require a very substantial increase in personnel, but it is my opinion that such an increase would be fully justified.

It has been my experience in the trial of cases that very frequently patents are held invalid on items of the prior art that were not before the examiner in the Patent Office during the prosecution of the applications. A thorough classification of the prior art should reduce the number of such instances, and would result in a great saving in expense and more assurance to patent owners that their patents have sounder validity.

I know that Commissioner Watson shares my view in this respect, and some progress is being made to correct such a situation.

There is another matter that seems to me to be one that would encourage the independent inventor. The Government fees in relation to the prosecution of applications should be definite, perhaps with some reasonable increase in filing and issue fees, but the uncertainty of specific charges for the number of sheets of drawings, pages of specification and number of claims should be eliminated. Frequently independent inventors necessarily must finance the filing and prosecution of applications through outsiders. It has always been my opinion that, if the expense of the filing and prosecution of the application is kept out of the realm of uncertainty, the opportunities for the independent inventor to finance his developments and to protect them by patent will be increased.

STATEMENT OF DONALD E. LANE, PATENT ATTORNEY AND COMMISSIONER, UNITED STATES COURT OF CLAIMS

(The following remarks contain Mr. Lane's own views and are not to be construed as being approved or disapproved by United States Court of Claims.)

First in importance to me is the broad problem of classification of technical information. Persons working with the patent system, persons engaged in research, and persons engaged in production all waste an important portion of their time because of inadequate classification of available technical information. It is time-consuming to determine what has already been done. It is difficult to determine what may be done without infringing the rights of others. It is difficult to start work on a problem at the level which has already been reached by others. The duplication of effort and of results is wasteful of brainpower and is costly. Solution of the classification problem seems to me to be a major objective for the patent system, industry, and research interests. The patent system exists to promote scientific progress, but such progress is delayed unless the patent system includes an adequate classification system of all available technical information. The development of a practical classification system should be a function of the patent system and the results should be made freely available to the public by the Patent Office. As a starter, the present system of patent classification and reclassification in the Patent Office must be greatly expanded to include publications as well as patents, and to utilize modern machinery and further subclassification where possible. An increase in manpower and funds, and full cooperation with industry and research are required. More worthwhile and valid patents would be only one of the good results of such a program.

Second in importance to me is the need of adequate salary structures for the examining corps of the Patent Office. The job of properly examining an application for letters patent is a highly technical undertaking requiring skilled personnel of of superior training and intelligence, personnel adequately paid to stay on the job year after year. The examining operation cannot be done efficiently with salaries so low that the skilled examiners are easily induced to resign for better paid positions in industry.

Third in importance to me are the delay and costs involved in obtaining and litigating patents. The delay in securing a patent will be reduced as the present backlog of pending applications is reduced. Better classification of technical

3. At the end of the first sentence, change "unless the making, using, or selling of such thing infringes a valid claim of the reissued patent which was in the original patent" to "unless the making, using or selling of such thing infringes a valid claim of the reissued patent which is the same as or narrower than a claim which was in the original patent * * *."

It is also suggested that the proposed revision be made applicable to reissued patents applied for and issued subsequent to the effective date of the 1952 act and prior to the effective date of the proposed revision so as not to work a discriminatory hardship against the owners of such reissues.

STATEMENT OF KARL LUTZ, PATENT ATTORNEY, PITTSBURGH, PA.

CONSTITUTIONAL ASPECTS OF PATENT LAW

In recent years some erroneous ideas have been advanced relative to the patent clause of the Constitution.

One of these fallacies is the idea that the Constitution sets up a "standard of invention." By "standard of invention" is meant a rule or criterion as to the amount or kind of novelty that must be present to endow a certain improvement with the qualities of a patentable invention.

Another fallacy involves reading the word "science" as part of the patent clause of the Constitution.

These fallacies were first given prominence in the A & P case,[1] in which the Supreme Court held a patent invalid on the theory that the lower court had not applied the proper "standard of invention." A concurring opinion referred to the "standard written into the Constitution," and said that: "The invention, to justify a patent, had to serve the ends of science—to push back the frontiers of chemistry, physics, and the like; to make a distinctive contribution to scientific knowledge."

This statement is wrong on at least two grounds. In the first place, there is no "standard of invention" written into the Constitution; and in the second place, the Constitution does not say that patents must "serve the ends of science."

A full study[2] of the historical background of the constitutional clause leads to the conclusion that in adopting the constitutional clause the convention intended little more than to transfer to the Federal Congress sole power to legislate on the subjects of copyright and invention. Prior to the convention, that power had been exercised by each State independently, and it had already become evident that a jumble of conflicting State patents would do nothing but impede progress.

It has been shown[2] that by using the words "inventors" and "discoveries," the convention evidently intended to prevent the grant of patents on known commodities—the illegal monopolies which had caused trouble in England. But these words are also words of extension, since they permit the grant of patents beyond the boundaries of the words "new manufacturers" of the English statute.

In order to demonstrate the error of the two fallacies referred to above, it is necessary to start with the exact language of the Constitution. The Constitution contains a section[3] which enumerates the powers of Congress. These include the 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."

This sentence is a "balanced" sentence, which was quite popular among learned writers of the 18th century. It states, first, 2 objects to be promoted; next, names the 2 types of persons to be encouraged; and ends with 2 types of subject matter to be protected. Separating out the objects, persons, and subject matter that belong together, we find that the patent and copyright clauses read as follows:

"The Congress shall have power * * * to promote the progress of science[4] * * * by securing to authors * * * the exclusive right to their writings."

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[1] *Great Atlantic & Pacific Tea Co.* v. *Supermarket Equipment Corp.* (340 U. S. 147, 154 (1950); 87 U. S. P. Q. 303).

[2] The Constitution Versus the Supreme Court Re: Patents for Inventions. University of Pittsburgh Law Review, spring, 1952, p. 449.

[3] Art. I, sec. 8.

[4] In the 18th century "science" meant learning in general.

tained language which specifically countermanded these decisions, and restored the patent system as it had previously existed.

Now there is appearing an effort to nullify this act of Congress by again conjuring up the false doctrine that there is a standard of invention written into the Constitution. A recent decision repeats the theory and says that the Supreme Court is the "final authority on the constitutional standard of patentability." [13] This is an echo from the concurring opinion in the A. & P. case.

It is believed to be clear from the above discussion that there is no standard of invention written into the Constitution. Quite the contrary, final authority over this question is given to Congress by the Constitution.

It is true that in the past Congress has not legislated on this matter, leaving it to the courts to develop and administer by the common-law process of acting on individual concrete situations as they arose. This was the best way to handle the matter, as it permitted the standard of invention to be a live one, growing at the same rate as the growing technology. And that is exactly the way this standard did develop, subject, of course, to some deviations as is always true of a growing common-law doctrine.

But the fact that Congress has in the past left this matter to the courts, does not mean that Congress has no jurisdiction over it. If the courts decide to use the power left to them by Congress in such a way as to nullify the patent system, then Congress can, and should, take such further action as may be necessary, under the power given it by the Constitution, to fully restore the patent incentive. Congress has full power to set up a "standard of invention" by legislation. In some ways this would be unfortunate, as codification always tends to ossify a growing legal doctrine. But it may be the lesser of two evils, if the Supreme Court continues its attitude of nullification of the patent system.

STATEMENT OF CHARLES C. JAMES, LOS ANGELES, CALIF.

THE COURSE OF AN INVENTION

A practical inventor will seek out something that industry is badly in need of and then set about trying to produce it.

First he makes a search of the prior art and discovers that a number of others have tried to overcome the deficiency, but upon analyzing their efforts, he finds that they apparently met with the unsurmountable and did not complete their undertaking in a manner acceptable to the average engineering department of the average industry, in other words, the previous inventions did not accomplish the desired results, nevertheless his attorney had drawn up a set of claims that were all inclusive.

This leaves the experienced inventor in a position where he not only has to provide a workable invention, but if he hopes to make a cent out of it he has to get out from under the broad claims that have been allowed the unworkable and therefore useless inventions that are choking progress.

His inherent enthusiasm causes him to proceed with the day and night chore, which sometimes runs into years, thereby destroying himself mentally and physically, and finally emerges with something that fits into industries' exacting requirements, without too much expensive departure from established procedure.

Then comes the unhappy ending. He writes to those who have been eagerly seeking such an important innovation and in response receives a batch of "come-on letters" expressing the greatest possible interest in the invention and inviting him to by all means send them a drawing or working model. (In most cases there is a very cleverly written form enclosed for the inventor to sign and return. I am quoting herewith a sentence which appears in the form sent out by a corporation I understand is grossing around a billion a year.)

"No obligation of any kind is assumed by, or may be implied against _____ by reason of its examination of my suggestion, unless and until we have entered into a formal written contract establishing and defining our respective rights and obligations."

The accompanying letter is very solicitous about the inventor's protection and even suggests that he consult his attorney, knowing as they do that the average attorney who specializes in applications has had little if any experience battling such cases with big corporation patent attorneys, that in reality the form affords

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[13] *Seismograph v. Offshore* (107 U. S. P. Q. 104).

"Invention" as presently used in the courts in patent cases does not mean what the dictionaries say it means. I know this not because the courts have defined it more precisely than usually (which is the common reason for legal definitions differing from generally accepted ones) but because the legal definition is fuzzier. This cloudy definition of invention has been incorporated in the 1952 codification of the patent law; United States Code, title 35, section 103 of which the most unfortunate pertinate language says in essence: "If the alleged invention would have been obvious at the time it was made to one skilled in the art—no patent."

Obvious? Obvious to whom? Which man skilled in the art? Would anyone contend that all skilled workers in an art would find the same things obvious? Also supposing the skilled worker is also an inventor, is invention negatived if he finds the alleged invention "obvious"?

Obviously this sort of a "definition" requires a purely subjective determination by the administrative tribunal or court called upon to decide whether a disputed claims define a structure that a skilled person in the art could have devised had he put his mind to it. Clearly he could devise it if he found it obvious. This "definition" even tends to suggest that a person skilled in his field cannot invent in it, for he did only that which became clear to one skilled in the art. With such a loose manner of determiniug invention, the poor inventor and his patent lawyer, if he be at all conscientious, are placed in a position of being second-guessed at any 1 of at least 3 stages in the trial by fire of inventious. They can be misled by their searcher, foiled by the Patent Office, or frustrated by the courts.

If the searcher is psychic, he will turn up the prior art on which the examiner will use in trying to guess whether you have a patentable invention. If the examiner has a practical turn of mind or has tried to invent something himself, you may get the claims you are entitled to. One still must face the courts in the event anyone decides to contest the correctness of the Patent Office in issuing the patent. Who among the young new industries or individual inventors can stand a real court battle on a patent? This is particularly true if the case goes to the court of last resort with its present unfortunate attitude regarding inventions that fall short of deriving useful energy from cosmic rays.

Clearly a tough attitude on patents aids the big research organization with its almost unlimited resources both financial and technical. Only they are apt to make the grand discovery. Only they can defend readily the invention once made—under our present laws. More and more the former protection of the patent law to the individual inventor and small new enterprise attempting to gain a place in the sun in competition with big business is becoming a tool for creating ever-growing monopoly. Even the individual inventor wisely sells or licenses his invention to a giant in the field if he can, for he knows well the folly of attempting to compete. And yet a good patent law could foster the very competition between the established and the newcomer that we hold so dear in this country.

What can be done? With a lack of modesty ill befitting one so briefly in the practice, I suggest that the solution is simple. Three things will minimize and perhaps resolve many if not all of the current difficulties described above and in countless articles, hooks, and speeches. If we could rid ourselves of "invention" as a separate mystical concept, many of the current unhappy situations would be relieved. It is clear that the first step is to substitute a new verb such as "creates" for "invents" in United States Code, title 35, section 101 which would then read: "Whoever creates or discovers any new and useful etc." This language would eliminate the present court-felt need to find that certain "impalpable something" called invention before it could declare a new device or method patentable. Secondly, United States Code, title 35, section 103 should be amended by striking the first sentence thereof, since it fosters subjective determination of novelty as pointed out above.

Finally to make sure the courts do not transform "patentable novelty" into the old bogey man "invention," the legislature should define "patentable novelty" by objective standards that at least minimize the need for personal opinion entering into decisions as to the patentability of an invention. It is here suggested that patentable novelty should be described as:

Patentable novelty shall be found in any patent application claim if it recites structure that—

1. Shows a new functional relationship between any of the factors which are required for rendering an invention in the industrial art practically operative.

other inventions which are ready for immediate market when the application is filed, or may actually be upon the market and immediate protection from infringement is desired. In such case the patent may have to issue very quickly in order to be utilized by the inventor.

In general therefore I may conclude from my experience over the past 25 years with the Patent Office that with minor suggestions for improvement, it has functioned very well indeed. Again looking at the functioning of the Patent Office from the standpoint of the broad economy of the country, and witnessing the marvelous technological growth to which this country has achieved, and continues to achieve, I think it is fair to state that the Patent Office system has contributed in very large measure to this growth.

When I come to survey the field of invention, I find that invention may be variously classified into two main groups which may be characterized by the terms "basic invention" and "derived invention."

Fundamental invention generally stems from a more or less complete knowledge of the particular field or fields of physics, chemistry, optics, and the like, and often involves the utilization of recently discovered knowledge in these and related fields. Various apparently unrelated facts are often combined and synthesized by the inventor into new and useful devices and processes, some of which may be entirely new. As an example I might cite the vacuum tube as growing out of knowledge gained in the fundamental study of the electron during the preceding 50 years, and more recently the invention of various types of transistor, which grew out of studies in solid state physics still more recently.

As an example of the derived inventions, which are more often called gadgets, one might cite the safety pin, various types of fountain pens and pencils, and the like.

Of course the above classifications may be further broken down into inventions which are relatively simple and those which are more complex.

The concept of a patent as a reward for the inventor is fundamentally a sound one. However, unless there is a followthrough between the issuance of the patent and its subsequent development to a commercial stage, and its actual commercialization with a resultant cash income to the inventor, in some degree commensurate with his contribution to society, unless this comes to pass, the incentive can very often turn into a burden upon the more prolific inventor.

The intellectual property created by the inventor, more particularly in the field of derived inventions, and particularly those in the form of readily marketable gadgets can in many cases be successfully perfected with relatively small capital expenditure by the skilled craftsman very often in his own little workshop. Such devices are very often brought to the attention of interested manufacturers who subsequently arrange a purchase or license deal to manufacture, promote, and sell to the eventual financial benefit of the inventor. There are various agencies and means open to inventors to bring their inventions to the attention of interested parties. Among these are direct advertisement in trade journals, magazines, and newspapers, as well as free publicity which can be obtained at nominal cost. Also recently there have been programs like the big idea which assist in the exploitation of a small number of inventions.

While not entirely satisfactory these means often afford the small independent inventor of readily commercializable gadgets, devices, and improvements, a market place for his developments. Such gadgets brought into the market by these means have greatly enriched our lives and are to be encouraged.

However, the story in connection with fundamental inventions, and those inventions of both fundamental and derived nature which are more complex, and more difficult to bring to a practical utilization, very often constitute an entirely different story.

The more fundamental inventions very often require a highly competent technologist or scientist with educational background approximating to the Ph. D. level. Very often his inventive contribution may be the result of many years of study and work in one or more related fields of science. His work very often requires a highly skilled competence in the field of mathematics, physics, and chemistry, with a deep understanding of the more theoretical aspects, which he is able to relate to produce a practical end result. However, once the invention is made, and reduced to a patent application, and possibly even to an issue patent, which may be completely sound, a long and costly period of practical development must then ensue.

It is at this point, then, that the inventor, who may have contributed an invention of the utmost importance, might thereafter find himself in the greatest of difficulty. He must in some manner obtain risk capital to test out an idea,

Under these circumstances it seems to me that the granting of a patent does not fulfill the purpose intended.

That is, most inventors who invent for the hope of reward will ultimately find that, that reward, if it comes at all, under the circumstances outlined above, may be very minor indeed. This may act as a depressant against the further stimulation and further creation of new inventions. Thus the public is prevented from benefiting to the fullest extent from a talented mind.

The major bottleneck in the above process of invention, is the minor reward, or actual disillusionment or disappointment, followed by depressant, against further inventive effort, or by a diversionary action by the inventor into other fields of business, commerce, or employment where regular income may be obtained to fulfill his and his family's needs.

It is evident from the above that risk capital is needed at two stages of the development of the invention, as follows:

1. In the perfection and development of the invention to a commercial stage.
2. For the promotion and commercialization of the patent.

Thus the fulfillment of above two stages in the obtaining of risk capital are essential if the inventor is to derive a reward from his patents. At the present time these stages are realized in only a small proportion of actual cases, and when they do occur they come about in the most laissez faire manner possible. In other words, chance, opportunity, and business ability are essential for the obtaining of risk capital at the present time.

Since it is the purpose of the Congress to foster science and the useful arts, and it is for that purpose that patents are granted, and for that purpose that rewards are promised to the inventor to stimulate his further activity, and to pay him for his contribution to society, therefore it is my belief that legislation is needed to assure that effective means are provided to carry out the two steps, in which risk capital is needed. Means for providing risk capital in a regular and orderly manner must be developed by legislation, rather than as in the present chatoic, chance-laden, sporadic, and relatively ineffective procedures, that must be employed by present-day inventors.

To this end I have the following suggestions:

That the National Science Foundation, or other Government agency be empowered to negotiate contracts directly with inventors and to provide them with risk capital for their developments to the point of commercialization, and that further thereafter, the Congress shall provide additional risk capital by contract to introduce the perfected invention, and promote it at least to the point where success or failure is definitely indicated.

Such grants from this fund will be made available to inventors and scientists having suitable projects requiring risk capital for steps 1 and 2 enumerated above.

Such grants are presently being made by the Government through such agencies as the Office of Naval Research, the Atomic Energy Commission, etc., but they are at the present time only being made available to corporate entities usually for specific projects involving the military requirements, or for general investigation in some basic scientific field of research, and not necessarily related to patentable inventions. In addition to corporate groups, nniversity groups are also amongst the favored grantees.

I believe that science and the useful arts would very much benefit from the granting of funds for risk capital under steps 1 and 2 to qualified inventors.

It is also my suggestion that such funds may be granted to the inventor with the understanding that he subcontract the necessary facilities from university or corporate laboratories, which would be glad to work under such grants in the field specified by the inventor. After the subcontract is completed, a report on progress would determine whether or not it is feasible to proceed further with step 1, or with step 2.

Again existing corporate entities and other existing agencies could be subcontracted under step 2 by contract with the inventor and the Government to commercialize the devices perfected under step 1.

After the development had proceeded to the stage where it is self-supporting, then the Government could step out of the business, and allow the usual license or other business arrangements to carry forward from then on, on a private basis.

The funds for this work could be made available out of the huge military budget customarily being spent yearly, provided however that the relaxation of tension in the world proceeds, and we are issued into a more peaceful era.

Even if this were not so it would still be desirable to obtain the funds, to take up the slack in industry, by creating new industries and products which would

STATEMENT OF JOHN A. MARZALL, PATENT LAWYER AND FORMER COMMISSIONER OF PATENTS, CHICAGO, ILL.

My name is John A. Marzall, and I reside at 1120 Lake Shore Drive, Chicago, Ill.

I have practiced law continuously ever since 1926, specializing in patent and trademark matters including the filing and prosecution of patent and trademark applications before the Patent Office, as well as defending and prosecuting suits, particularly patent and trademark suits, in the various district courts and courts of appeals of the United States.

I am admitted to practice law in the States of Missouri and Illinois and the District of Columbia. I am also admitted to practice in various district courts and courts of appeals, including the Court of Customs and Patent Appeals, and in the Supreme Court of the United States.

At the present time, I am senior member of the law firm of Marzall, Johnston, Cook & Root, 135 South LaSalle Street, Chicago, Ill.

Prior to December 2, 1949, I was a member of the law firm of Spencer, Marzall, Johnston & Cook, 135 South LaSalle Street, Chicago, Ill., having resigned from that firm in 1949 to accept the position as Commissioner of Patents.

In my opinion, the reason for the enormous Patent Office backlog, and the amount of time involved in obtaining patents through the United States Patent Office, lies in the fact that the Patent Office has never been able to catch up on the backlog. The backlog is, and has been for many years, responsible for the delay in issuing patents. During my tenure of office as Commissioner of Patents, approximately one-third of the entire business of the Patent Office was devoted to reducing the backlog.

The Patent Office today is evidently still struggling with the backlog, and perhaps one-third of the Office time is devoted to reducing the backlog. Also, the severe shortage of examiners has caused the backlog to be increased. Therefore, the Patent Office examining corps should be substantially increased to overcome the backlog, whereupon the Patent Office could operate on a current basis and at less expense.

Without having any backlog to take care of, the Patent Office could easily be maintained current. Patent Office actions would be received only a short time after filing of the application and after responses from the applicant or his attorney. This one-third time, which is used in reducing the backlog, could be applied to new cases to make the Patent Office current. Were the backlog completely eliminated, only two-thirds of the normal personnel would be required, resulting in an appropriation of only two-thirds of the actual appropriation now needed. Of course, sufficient trained personnel would be required to maintain the Office current after that condition has been accomplished. Should the Patent Office ever get the backlog disposed of, it could and would operate more efficiently, be current with respect to dates, and operate on a lower appropriation.

After a survey of the primary examiners of the Patent Office, it was stated that the examining division could increase production from 10 to 15 percent and improve the quality of actions, if they had proper and adequate working conditions. If such is a fact, then the salaries saved by the increased production would pay for a new Patent Office over a period of a few years. I did make such a suggestion but was informed through the office of the General Services Administration that "now is not the time for new and additional building construction." Perhaps the Patent Office could be operated more advantageously, efficiently, and effectively, if it were a separate and independent agency and a separate building was built to house the Patent Office. A new Patent Office building should include proper facilities and sufficient space for efficient operation, as well as provide for future expansion. Air conditioning is needed to eliminate shutdown time in hot weather.

The Classification Division of the Patent Office, during my term as Commissioner of Patents, was 2,000 man-years behind. I believe that such a condition still prevails. A 2,000 man-year classification workload could be overcome by employing 100 additional classification examiners for a period of 20 years, or the addition of 200 classification examiners for a period of 10 years. I had intended adopting the 20-year program, but lack of money to pay additional examiners, the difficulty in obtaining additional patent examiners, and the lack of proper working space prevented that procedure. Therefore, it was only possible to maintain classification slightly above the current requirements at that time.

The time now required in obtaining a patent could be materially reduced if the original examination was a complete and thorough one, so that all the art would be cited in the first action, leaving nothing more to be determined than the

to consult experts. I, therefore, am in favor of the court seeking periodical advice from experts in the various technical fields when necessary to assist the court in determining only the differences in construction. The law and the objective reasoning of the court will still prevail.

In conclusion, I do not believe there is anything wrong with the Patent Office that more men, money, and space cannot cure.

Also, patents can be further strengthened by means of legislation.

STATEMENT OF FOORMAN MUELLER, PATENT ATTORNEY AND CHAIRMAN NATIONAL COUNCIL OF PATENT LAW ASSOCIATIONS

First, I am very much in favor of what seems to be the most important theme of your conference of October 10 and 11, 1955, namely, the function of the individual inventor, and the stimulation of new enterprises under the various problems occasioned by present legal and economic conditions. I believe this subject should have formal consideration at this time, but more to collect data on the problem than to start with the supposition that drastic remedies are required to correct any existing conditions with respect to the individual inventor and small business. It is important to improve existing facilities for the protection of, and encouragement of, small business and the individual inventor, as I shall point out, but the patent system is still the principal if not the only means for their protection. Actually, I believe that "the individual inventor" and "small business" are synonymous, for it is the invention of an individual which is often the basis for beginning a small business, and a small business is often successful primarily as the result of the ingenuity and inventiveness of 1 or 2 individuals.

I have now been in the field of patent law for 26 years and in January 1935 succeeded to the patent law practice of my father upon his death after he had been involved with the patent system as an inventor and practicing patent lawyer since some time around 1900. I mention this background and my own experience only to emphasize that I was brought up in a patent law environment as a youngster. Then as a law clerk and lawyer, went through the economic, social, and legal changes from 1929 to date. It is my present opinion that the important change affecting small business and the individual inventor insofar as patents are concerned, is the changed attitude of the courts toward patents, particularly in the past 20 years. I have represented individual inventors, small businesses built upon patent protection, and large corporations to whom patents are equally important. Today, if an individual inventor really has something worthwhile and will carry it to a stage where it evidences commercial potentialities, there are individuals and companies who will provide the funds or facilities to promote that invention in somewhat the same proportion as existed 15 to 25 years ago. The Patent Office is still doing a very conscientious and competent job, although improvements can be made in classification in the Patent Office and it will be important to reduce the time applications are pending.

Otherwise, I believe that the patent system is one of the most potent factors we have today for industrial development. The small inventor would have no protection whatsoever without it. In fact, to abolish the Patent Office or reduce its effectiveness today is to take us back to secrecy of process, and a great reduction in industrial and economic progress.

Again referring to the small inventor, I do not believe the large industrial laboratories have supplanted such inventor. Possibly they have increased the competition, so to speak, in making inventions by their concentration on this. Undoubtedly, the cost of doing development work in chemicals and in electronics today has made large laboratories necessary. But this is a result of the times and not an effort to squeeze out the small man.

Prior to 1935, the attitude of the courts toward a meritorious invention and the patent thereon was sufficiently favorable that individuals and companies would put money into inventions and promote them commercially with the expectation that their investment would be protected to a reasonable extent. The record of patent invalidation for the 15 years, from about 1935 on, has been such that it is almost impossible for someone backing an inventor or a small business to expect that patent protection will make his investment reasonably safe and sound. Of course, many patents were invalidated prior to 1935 by the courts, but the overall record indicated that a new and meritorious invention protected by a well prosecuted patent would be favorably recognized.

The standard of invention has been raised by the courts, and the courts have said as much in their decisions. I do not believe that the facts, if they could be

scientist and administrator in industry, which bears on the patent system and may be of interest to your subcommittee. He is very much concerned about the great deficiency in physicists, as well as engineers generally with respect to our needs in this country. He believes that the security system in both Government development work, and in industry which has required that so much scientific work be maintained secret, has been one of the factors contributing to this deficiency. He said that a trained scientist inherently wants to "rub elbows" with similarly trained scientists, and discuss the work that each is doing for whatever value there may be in such an interchange, and sometimes for the pleasure that the scientist obtains simply from telling of his accomplishments. He said that this human trait has sometimes been responsible for causing many qualified men to go into the higher sciences, and obtain their doctors' degrees, or as "doctors," specialize in the higher sciences. This is where the deficiency today is even more critical. He recognizes the necessity for maintaining secret developments wholly concerned with military use. But he believes that the widespread prohibition against giving scientific papers on many industry developments as well as academic accomplishments not entirely, or not at all, directed to the military, has discouraged some embryonic scientists from contiuuing with their academic work, or remaining in science for their life careers. Teachers have disliked this trend, and their attitudes as well as those who do not go on to broader scientific learning and work, have reflected this dislike for and irritation with secrecy of disclosure.

He agrees that there are other factors than this alone contributing to the deficiency, but he believes that this is a very important factor in the present critical personnel situation in the whole field of engineering and research.

From the governmental research standpoint I have felt that the Atomic Energy Act is unduly restrictive in the dissemination of atomic information. Certainly atomic energy is going to play an important part in every phase of life within the next 25 years if the reports from the scientists are reasonably accurate. Accordingly, it might be very important to consider the patent end of the Atomic Energy Act as well as the secrecy end.

From the commercial standpoint, we know that intense competition has brought about a certain amount of secrecy within each company. Certainly some of it is justified because the patent system has not provided adequate protection in view of the attitude of the courts toward patents, which removes what was once a more reliable source of protection to the tremendous investments that are necessary in bringing out new products and new improvements. Furthermore, it is taking so long to get patents, and competition and industry move so fast, that the 2- to 5-year period required for the issuance of a patent is sometimes as much as the useful life of a new product, or the first product in a new line of product development. Accordingly, business which is risking billions of dollars each year in order to expand our economy and keep it at a sound rate of growth has no alternative but to maintain some of its discoveries secret until it is out on the market. Engineers and scientists are primarily responsible for important new products, and improvement on the old. They have been unable to publish the results of their work until the product is on the market and the companies (their employers) have been forced from a sound competitive standpoint to require that they withhold publication of their findings.

On the other hand, a prompt, healthy patent prosecution wherein the patent does issue from the Office with a better examination due to the up-to-date classification and competent examining personnel, and a more realistic viewpoint by the courts would provide earlier protection. It would permit industry to release information earlier, and yet provide patent protection in relation to the company investment necessary to accomplish the new discovery or development.

In what may appear to be a roundabout way, therefore, a strong patent system could encourage freer interchange of scientific and commercial engineering information, and satisfy the scientists and engineers. The engineering and scientific profession involved in this industrial work could publish their findings earlier, and the individual could get the credit that is of interest to some. This, in turn, might make a more attractive environment, and qualified young men would be more interested in going into science and engineering.

I was amazed to learn of the substantial sums of money in fellowships and scholarships available for which there are not takers at the present time, or that men and women not really qualified are given these grants in a tremendous effort to stimulate an interest to go into the sciences. I am sure that figures could be obtained from some one of the foundations, or one of the foundations

My suggestions for a new outlook on the patent structure are given in the attached memorandum. The basis of my proposal is simply that the original intent of the Constitution be carried out in future patent practice.

MEMORANDUM ON PATENTS

The Constitution of the United States authorizes Congress to secure to inventors the rights to their inventions. To implement this, Congress has enacted patent laws, and has established the Patent Office, charged with examination of all applications for letters patent, and with the grant of patents, after all technical and legal requirements have been met, to inventors giving them the right to the exclusive use of their inventions for a period of 17 years.

However, as the patent system now operates, the grant of a patent gives no security: it is merely a basis for litigation. The grant of rights of exclusion by the Government is meaningless because at any time during the 17 years (or after) a judge can nullify the whole Patent Office proceedings established by the Congress.

It is therefore proposed that the existing system be so modified that the grant of a patent, and the Patent Office proceedings relative thereto, shall not be reversed except in cases of proven fraud.

Under existing patent laws, an applicant for letters patent is required to establish to the satisfaction of the Patent Office that he is the first and true inventor of the subject matter of the invention, and that the invention is new and useful. After satisfying all the requirements of the Patent Office, the inventor is granted a patent giving him the right for 17 years to exclude others from making, using, or selling his patented device. When, however, the inventor tries by litigation to enforce these provisions in accordance with the right granted him, he is faced with further legal proceeding to establish once again his right to the patent and again proving that it is new and useful, and that he is the true and first inventor.

In order to perform its duties, the Patent Office is staffed with technical experts skilled in the various fields of endeavor, and the Office staff also includes legal experts to insure compliance with the patent laws. As a result, a patent issued in the United States has survived an examination by the best technical and legal minds available to the Government for determining the merits and scope of the invention covered by the patent. There is every reason to expect that this examination should be more thorough in scope and interpretation than that of a nontechnical judiciary. In many cases the latter is forced to rely upon technical data and conclusions advanced by an attorney whose sole interest lies in defeating the patent in litigation.

The language of the constitutional provision concerning patent grants is clear, in that the intent of the framers of the Constitution was that an inventor, having complied with the law and having been granted a patent, would be free to enjoy the privileges secured to him under the Constitution. It is to be noted that the Constitution refers to "securing" these rights to the inventor, the definition of securing is "protecting" or "guaranteeing." The patent statutes enacted by Congress and a large volume of court decisions under these laws are intended to implement the constitutional provision; but unfortunately the present effect of the interpretation of these laws by the courts provides no such guaranty for the inventor as is required in the Constitution. As these laws now operate, unfortunately, the odds all too often favor the party with the longest purse.

By a change in the system so that a patent may not be declared invalid except in case of fraud, the intent of the constitutional provision would be carried out; there would be fewer but better patents, and the uncertainty and confusion about the scope of a United States patent would be resolved. This may require the strengthening of the Patent Office staff, but technical questions of anticipation, involving a wide experience in a particular field, will be properly resolved by the Patent Office experts in the art. The judiciary will pass upon what is essentially a matter of trespass: the power of the judiciary in patent cases will be in no manner lessened by the proposed change, as it is not intended that this proposal shall affect procedures in respect to litigation on infringement of patents, except that an infringer will be unable to attack validity of the patent as justification for his trespass on the patent rights which have been granted under the seal by the United States.

The constitutional provision in respect to patents has been held to be a contract between the Government and the inventor; this proposal requires only that the Government shall live up to its obligation as a contracting party, so that

It seems that the Patent Department is the only department of the Government that is making any money and they surely should be given enough money to carry on this important part of our development as the foremost nation of the world.

STATEMENT OF LESLIE A. PRICE, JAMESTOWN, N. Y.

Senator O'Mahoney, you are on the right track in revising patent laws and procedures and might well include copyrights. It can be made a spur to initiative and progress and an answer to bigness in industry.

May I suggest simplification? For instance, the wide publication of the standard indexes or arts. Simple application forms (without the redtape of exact size, drawings, etc.), forms any intelligent person can make out. Therein, the claim of coverage in appropriate indexes or arts. Immediate check by clerks so trained to determine if the invention is appropriately within the index class or art or arts and immediate issuance of a clearance certificate which places it in the proper classification. This certificate to all intents and purposes to establish the right to the holder of inclusion in such classification without prejudice, interference, etc.

If the invention is actually in use and so certified, it should be promptly processed to a definite conclusion, or if so certified within 1 year from filing application. Otherwise it should be open to use to anyone upon filing an application for use 3 months prior to such use (with notification to certificate holder) and detailed estimate of the saving from or income therefrom expected. Actual quarterly reports should be required. One-half the estimated adjusted quarterly to the actual should be paid in quarterly and divided equally between Patent Office and certificate holder and free from all taxation up to $10,000 per year.

An award fund should be set up with a major portion of such Patent Office receipts, a reasonable percentage (say 15 percent) to be divided equally among prior annual certificate holders of latest year in that classification or art; 15 percent to most effective individual producers or users under the particular certificate, etc.

This, of conrse, is merely a general outline or suggestion of the direction I believe procedure may well take to be really effective. Either it should be simplified or tightened up so a patent would carry real protection and actually be policed by Uncle Sam.

Like our educational system I think there should be effective liaison between the Patent Office setup and manufacturers, producers, and distributors who should be promptly and continually notified about new discoveries and inventions in their particular fields—a tie so effective that use of patents in general would be assured and not left to gather dust in any Government office.

STATEMENT OF HELEN REIS, ST. PAUL, MINN.

I take this opportunity to write to you on behalf of the little man desirous of patenting an idea under present procedure. The man in the lower income bracket (say the three to four thousand bracket) with a family finds that it is virtually impossible to patent an idea from a financial standpoint. Unless he has backing of some sort, he must either abandon his idea completely or find himself ensnarled in problems of procedure. If he assigns an interest in his machine (or idea, as the case may be) he finds that he must give up at least a controlling interest, and often up to a 75-percent interest, in the idea in order to receive basic financial help to enable him to begin production or a working model of his invention or to enable him to start formal application for patent. Likewise if he is to approach a large firm for possible help he finds that he runs the risk of being gobbled up and may eventually lose any claim to his original idea.

Patent attorney fees are prohibitive for the small man. No doubt there is much involved in the search for prior art and for eventual formal patent application. However, the man who must maintain a home and raise a family on his earnings finds that he must think long and hard as to the advisability of mortgaging his home and possibly his future to borrow in order to instigate patent proceedings which may, or may not, hold up in the future. During the 4-year interim that it takes to process some patent applications at this time, foreign patents could be filed which would make our patents obsolete before they are even formally approved.

The House Judiciary Committee's report on the bill which became the new pateut law summarizes the history of this constitutional clause (H. Rept. 1923 and also S. Rept. 1979, 82d Cong.). It points out that it is really two clauses merged into one and that the word "science" as there used meant knowledge in general, the progress of which Congress was empowered to promote by giving authors an incentive to write and publish. It reminds us that all of the early patent acts were entitled "Acts To Promote the Progress of Useful Arts."

Perhaps the dissemination of these simple facts will tend to inhibit further growth of the misleading notion that the purpose of the patent system is the promotion only of sciences, such as physics and chemistry, an idea which not only ignores the specific reference to useful arts but attaches to the word "science" a meaning it has acquired only in relatively recent times.

Man, in his capacity of verbal animal, has a propensity for complicating the simple fundamentals. In addition, as Mr. Justice Holmes once said, "It is one of the misfortunes of the law that ideas become encysted in phrases and, therefore, for a long time cease to provoke further analysis." This is as true in patent law as in any other field and from time to time the patent system has suffered from these human failings.

The patent grants, as stated in section 154 of the 1952 act, "the right to exclude others from making, using, or selling the invention." Congress has declared, moreover, in section 261, this this patent right shall have the attributes of personal property and in section 282 that it shall be presumed valid.

Let us think simply about why the law provides for the creation of such property rights. There is a single simple reason: "to promote the progress of * * * useful arts." How is this promotion effected by patents? Many things have been said about compensation or reward for ingenuity, toil and expense, incentive to disclose, inducement to invest risk capital. All of this is true but the simple answer is usually not mentioned. It bas never been more cogently expressed than in the editorial in the January 5, 1953, issued of Life magazine which is devoted to "the American and His Economy." After saying that the secret of American wealth, if we could name it, is more precious than the wealth, as the golden goose was worth more than her eggs, it states this conclusion: "At the heart of this United States system are indeed many motives—as many, perhaps, as in democracy itself. Yet one motive remains fundamental, in theory and in fact. This is the old selfish hope of self-betterment, also known (forgive the expression) as money."

MONOPOLY

It was known as long ago as Aristotle, and unquestionably long before he wrote of it, that the holder of a monopoly of something in demand stands to profit from it. A patent is a temporary monopoly.

Monopoly is not inherently evil, it is merely power. Power cannot be characterized as good or bad. The patent system taps that power and puts it to work, in the public interest, to promote the useful arts.

Failure to comprehend this simple fact, disparaging patents merely because they are a kind of monopoly, diminishing their effectiveness as monopolies, while they last, has only the effect of defeating their constitutional purpose and lessening their effectiveness in promoting progress. This would seem to be contrary to what Congress still regards as sound puhlic policy.

Monopoly has become such an emotional word—like communism—that I should just like to remark that there is no more reason for condemning it in all its forms than there is for attacking every kind of trust because we have antitrust laws, which is no longer a very appropriate name for them anyway. As the trust is a very useful legal institution, so the patent is a type of monopoly which is a very useful instrument of public policy—if it is clearly recognized for what it is, a powerful economic incentive.

This emotionalism about monopoly—which is a word of such wide scope that out of context it conveys no definite meaning—has produced some absurd results. The Supreme Court has said sometimes that patents are monopolies and at other times, with great elaboration, that they are not. The tendency of the modern text writers has been to seize on the latter view and to perpetuate a fallacy. Robinson, sound as usual, writing in 1890, the year of the Sherman Act, deemed it very important to the proper development of the law to understand that a patent is a true monopoly.

the art, technical brother of the ordinary reasonable man. If the courts do not stick to ordinary skill as a standard, they can quite readily rule out the class which does the inventing.[1]

Now, to get back to simple fundamentals again, nonobviousness, added to novelty, brings patentability into line with the basic distinction between good and evil monopolies, assuring the people of freedom and liberty not only in what they had before but also in what they have a right to expect in the way of spontaneous advances from those of ordinary skill in the art.

Public policy does not provide us with any self-evident reason for going beyond this basic requirement. If the courts can be persuaded to take the new law at face value and get over their confused thinking about monopoly, we will be far along the road to overcoming current complaints about the operation of the patent system.

STATEMENT OF ESTELLE RIES, AUTHOR, NEW YORK, N. Y.

REFORMS PROPOSED FOR PATENT SYSTEM

My distinguished father, the late Elias E. Ries, fellow of the American Association for the Advancement of Science, took out nearly 300 patents, including such tremendously important ones as sound on film, on which talking pictures are based; alternating-current railway systems on which modern rapid transit functions; electric welding, electric riveting, and many others.

In practically every case, injustices, slowness, uncomprehension, redtape, high costs of services, rigidity, and a long list of other Patent Office perversities and weaknesses snatched many fortunes from under the nose of my father. A large number of instances of frustration and anguish rewarded him instead of the alleged protection the patents were supposed to give him. Many of these I describe in my book, Elias R. Ries, Inventor, published by Philosophical Library. I also give many suggestions which should fall right in line with what the Subcommittee on Patents is undertaking. Let me try to summarize a few of them.

It should be realized that there are two major types of invention. One is a simple affair or novelty which may be readily produced, easily promoted, immediately adopted, and can make its inventor an easy fortune. The other and far more important class of inventions may not come into use despite all efforts of the patentee, during the 17 years of the life of the patent. Among these are those of a highly original and fundamental type which may form a new departure on previous and well-settled practice; or again, inventions that are ahead of their time and require the art to grow up to a point where they can be successfully utilized; or those that from their very nature require the investment and risk of a large amount of money from someone other than an impecunious inventor before even a practical demonstration of the advantages claimed by the inventor can be had; or such inventions as can be used only by some existing monopoly, like a railroad, or a telephone corporation, whose interests or fancied interests may lie in throttling or shelving the invention. Such patents by their complexity and profundity pose many difficulties in every aspect of acquiring them.

Many of these classes of inventions eventually confer the greatest benefit upon the world at large. Those who are responsible for their creation, suffering all sorts of privations in their efforts, are customarily left without even adequate reward. Indeed, such inventors are fortunate if the training of the public mind or the growth of the art has been sufficient to cause the invention to be adopted in a tentative way during the last year or two of the life of the patent.

Naturally the more creative and prolific an inventor is, the more the costs for alleged patent protection. If a man has nearly 300 patents in various stages of application, amending, interference, allowance, and so on, thousands and thousands of dollars are involved, not the mere $60 which would be paid for the simple one-time inventor's effort. Enormous juggling with many ideas is involved to meet patent office dates and deadline fees, for if the final fee is not paid within 6 months, the patent is forfeited despite its allowance. It is the multiplication

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[1] See *L–O–F Glass Fibers Company* v. *Watson, Com'r.* (107 U. S. P. Q. 197), decided November 3, 1955, after the date of this letter, wherein the Court of Appeals, District of Columbia, said, in reversing the lower court, at p. 201:

"Who is 'skilled in the art'? The trial judge concluded he must be one 'such as Dr. Plummer is' but Dr. Plummer had risen to the post of general manager of Glass Fibers, Inc., practicing the Cook disclosure [of the application in suit]. He was far more than a person having 'ordinary skill in the art.'"

This same decision accepts Judge Hand's interpretation of 35 U. S. C. 103 in *Lyon* v. *Bausch & Lomb, supra.*

hold up purchase in anticipation of the expiration of the patent. It would speed up progress. It would also assure just compensation to the inventor if his patent has any value, and the manufacturer would know where he stands. For the multitudes of valueless patents the effects would be as now; no one would want to use them anyway and their present status would not be altered, so that only patents of value would come under the new arrangement. The patent might revert to the Government after tthe inventor's death, so there would still be no danger of "holding up the development of the art for the good of mankind." But even after his death the invention should be paid for 17 years; paid in this case to his family, or lacking one, to the Government for the advancement of the Patent Office.

Another recommendation might be with reference to patent fees. As it is now, patent fees are in effect a tax upon creativeness and discourage those very powers which a county depends upon for progress. Of course the majority of inventions are actually without ultimate value. A small fee to cover the work of the Patent Office is therefore reasonable. Yet the Patent Office might better, perhaps, depend for its chief support upon fees deducted from profit resulting from commercial disposal of the invention. A 1 or 2 percent deducted from the profit that manufacturers make on the use of inventions, coming into the coffers of the Patent Office for the 17 years of active life of a patent would be a real resource to the Patent Office. It would enable the Government to put the Patent Office staff on a far more substantial basis without unduly taxing the inventor in handling his case in the office, but also pay and maintain the most efficient experts to be had, bring its work up to date, and offer better access to its publications. Such a tax might also make possible the sponsoring of research scholarships and other sources of benefit to creative thinkers.

In principle, patents are intended to protect the inventor. In effect they do the opposite. The inventor must always be protecting the patent, which is a case of the proverbial tail wagging the dog.

The problem is just as trying to the sponsor of a patent. The patent may be buffeted about in the lower courts, the opinions conflicting, until finally and in most complete form it reaches the Federal Court of Appeals. Here, after a most exhaustive trial, the patent may be unanimously held to be valid. But on some pretext, it may reach the United States Supreme Court. And in that Court, which could not have known much of the subject matter, it may be unanimously held to be invalid. There are plenty of examples of such occurrences.

After the inventor has a patent, we therefore see, the patent has no value unless it is fought out in the courts—and then it often has no value. It is a matter of history that Edison and his associates had to pay more than $1 million to prove his right to the incandescent light, even though his claims had been duly vouched for by the United States Patent Office. What chance has the inventor working alone, the one who has no million dollar backing to fight for him? What is the use paying even $60 for a patent that needs further support in such figures, and such feeble support as a patent gives after all the smoke has cleared away?

Does it need any argument to show that a patent is the most hazardous property that can be named? It undergoes in the Patent Office itself a most searching inquisition, and is not granted until value and novelty are shown. It is then immediately pirated—that is a habit we have. And in the last analysis, unless the inventor has infinite patience and large means, he is robbed, and what the Patent Office itself has found, is treated as of no consequence.

I believe hordes of inventors must be discouraged by the fact that the Patent Office grants patents, and then after the inventor thinks he has something, interferences and litigations, piracy and fees to lawyers take all his money and often utilize the entire life of the patent.

In my father's experience, patent lawyers made more money on his cases than he ever made. To get any money meant immediately to spend some of it upon further experiments, but most of it for meeting a Patent Office date or averting a forfeiture, or to pay a patent lawyer, to prosecute an important case. We were all slaves to the Patent Office and its insistent, assorted, and countless demands. There was never anything to spend for the normal desires of living.

Such was the terrific urge of my father's dynamic mind that when one of these master inventions, with its huudred ramifications, was technically demonstrated and placed before the public, another master invention with its own particular hundred ramifications was forthcoming. The first would be in the back of his head as of possible commercial importance, and no one can say he was other than conscientious and diligent in carrying these forward commercially as far

The lone inventors possess such a mass of undisclosed inventions and discoveries as would solve our most serious problems, but through lack of capital; through fear of theft directly and indirectly, through inability to manufacture and merchandise; and through the long delays of legal aspects incident to the obtaining and protection of patents, there is frustration and waste of these precious assets.

My father wrote, "Patent attorneys are usually so crowded with other cases that it becomes impracticable for them to amend the applications of any given client as soon as he would have them do so, the result being that in many applications which I have entrusted to others to prosecute, my attorneys have been compelled to make perfunctory amendments at the 11th hour, merely to keep the application from abandonment, where if a longer time were available, a proper and more responsive amendment that would put the case into condition for speedy allowance could and would have been made."

It is likely that considerable inefficiency results from most inventors applying for assistance to patent attorneys. The patent attorney's efforts should be limited to the legal aspects of getting a patent and in trial work resulting from interferences, etc. Patent attorneys are now so overloaded with extraneous concerns pertaining to patents that they often push ahead actual legal matters in which dates important to the inventor may be forfeited. There should instead be a class of patent engineers to whom an inventor might apply for technical and market advice before he ever approaches the field of the patent attorney. A patent engineer would be qualified to determine whether the invention as such is sound, and what its marketing possibilities might be expected to be. This could eliminate many devices which clutter up the time and energy of patent attorneys, delay the work of the Patent Office, and give rise to false hopes among would-be inventors.

The patent courts should surely be manned by persons educated in electricity, chemistry, or other science specialty as well as in law. If judges cannot be found with this facility, then the court should have a judge and an engineer, as this work cannot be honestly or effectively performed by but either one skill alone.

Only persons of considerable wealth have any chance in a patent suit. Manufacturers appear to have lost all respect for the patent system, and nonchalantly "pirate" any invention that they want. Something must be done to restore respect for the patent system. Whether by education of the manufacturers and appealing to their better natures, or by reforming the system so that it will inspire and demand respect, and by instituting safeguards whereby this evil pirating will be greatly diminished if not eliminated. It is certainly no less a theft because it is done on a grand scale. It is amazing that public opinion, or even individual consciences, sanction the kind of pirating of inventions that has become so commonplace.

My father, lacking the temperamental littleness or cunning to fight businessmen at their own game either by siding with the racketeering instincts many of them possess, or ignoring them, was in a never-ending turmoil of legal proceedings. There were deliberate infringements by concerns who relied on their staff of high-priced lawyers to tire out the impecunious inventor by protracted litigation. There were costly interference suits brought for the same purpose. They could have legally acquired the inventions at probably less than they paid to evade purchase by circuitous methods and legal subterfuge.

My father found himself time and time again forced to sell for a relatively small sum, patents which in the hands of corporations powerful enough to protect them, became worth fortunes. Time and again he was legally prevented, or rather prevented legally, from obtaining the benefit of his products for years, winning vindication in some cases only after the patent had expired and was worthless to him as personal property. And when money was forthcoming, there were the lawyers waiting at the top of the line to take huge slices. It almost seemed as though Ries were working, not to aid society, not even to care for his family, but to produce income for lawyers. The man who gave the business world a score of the major inventions which have become an essential part of its fabric, never received enough to pay the debts contracted in their promotion.

It has come to my attention that, as could be expected, the Soviet inventor has no property right in what he has devised. The state appropriates his ideas. Yet he receives a reward. The industry that finds his conception of use pays one-quarter of the savings effected by his ingenuity into a fund for the encouragement of invention. Out of this fund cash awards are made. It is quite possible that some such idea could be adapted here to achieve a similar result. A revolving fund might well be developed.

being, you contract the area of its exposure to the self-correcting forces of the law. In time such a body of law, secluded from the rest, develops a jargon of its own, thought patterns that are unique, internal policies which it subserves and which are different from and sometimes at odds with the policies pursued by the general law.

Such conflicts, when they emerge in spectacular form, induce a public cynicism about the law and a sense of injustice. In such a climate the patent system may not fare too well.

SPECIALIZED JUDICIARY LEADS TO DECADENCE OF LAW

Moreover, a specialized patent court would breed other unfortunate consequences. The patent bar is already specialized. At present, however, patent lawyers practice before nonspecialized judges and accommodate themselves to the necessity of conveying the purposes of their calling to laymen. Once you complete the circle of specialization by having a specialized court as well as a specialized bar, then you have set aside a body of wisdom that is the exclusive possession of a very small group of men who take their purposes for granted. Very soon their internal language becomes so highly stylized as to be unintelligible to the uninitiated. That in turn intensifies the seclusiveness of that branch of the law and that further immunizes it against the refreshment of new ideas, suggestions, adjustments, and compromises which constitute the very tissue of any living system of law. In time, like a primitive priestcraft, content with its vested privileges, it ceases to proselytize, to win converts to its cause, to persuade laymen of the social values that it defends. Such a development is invariably a cause of decadence and decay.

The root of the matter is that there is a difference between specialization on the administrative level and specialization on the judicial level. On the administrative level there is advantage to be derived from close familiarity with the pattern of activity which is the subject of administrative action and regulation. The very essence of the judicial function, however, is a detachment from, a dispassionateness about the activity under scrutiny.

The views thus far expressed are of general derivation. They are not especially related to the patent law. They are equally pertinent to the admiralty law, to bankruptcy, to security regulation, or any other of the great provinces of the law. The views expressed stem from a conception of the place and function of the law in a democratic society as the arbiter and mediator of conflicting social interests and demands. A one-function court cannot assist the law to discharge that responsibility.

NO BENEFIT WILL BE OBTAINED FROM HAVING PATENT COURT

The patent law itself contributes a number of considerations which weigh against the proposal for a patent court. One of those is that the benefits of expert knowledge which are forecast by the proponents of the change will not be realized in any substantial degree. It is hardly to be supposed that the members of a patent court will be so omniscient as to possess specialized skill in chemistry, in electronics, mechanics, and in vast fields of discovery as yet uncharted. The expert in organic chemistry brings no special light to guide him in the decision of a problem relating to radioactivity. Consequently, even judges serving upon a specialized patent court will, in any particular case, prove to be nonexperts except only with respect to the patent law itself. But knowledge of the patent law has never presented any grave problem. The patent law presents no greater difficulties to its mastery than any other branch of the law. Reading the judicial literature created through patent litigation, I am not aware of any marked deficiency on the part of the present judiciary in comprehending the principles of law relevant to a decision in patent cases.

Another consideration derived from the patent law is that changes in patent litigation have already made the proposal stale. Patent litigation has overflowed its ancient channel. Today one who can navigate only in so-called pure patent law is inadequate as a patent lawyer and insufficient as a patent judge. Today patent litigation is most frequently met with in close association with other branches of the law such as unfair competition, trademarks, confidential submissions, antitrust, and corporate reorganizations. It is apparent that the patent expert can be only moderately learned in all these additional departments. It follows that, like most experts, he can bring his special knowledge to bear on

STATEMENT OF LOUIS ROBERTSON, PATENT ATTORNEY, CHICAGO, ILL.

LEGISLATION ESPECIALLY FOR INVENTORS

Free-lance inventors, whose funds are usually limited, have some special problems which can be cured or alleviated by legislation. Seeking to solve such problems is not intended to conjure up a nonexistent conflict between such inventors and research departments. Legislation which will help one will usually help the other, and probably will never hurt the other. But legislation which to a research department may seem not worth the trouble of seeking enactment may help fill a real need for the inventor.

Most but not all legislation needed for the individual inventor would reduce the expense needed to come under the patent system or to get justice under it. Saving a few dollars here and a few dollars there may save the patent system from being thought of by the intelligent free-lance inventors as something to be used only once or twice in a lifetime when the invention in question seems almost a certain moneymaker. In short, it may make the patent system function better for the miscellaneous progress we seek.

The special problems of the inventor tend to be neglected when legislation is being considered. We had an example of that during these recent round-table hearings, and I was the chief culprit. In announcing plans for the hearings, in issuing the call, and in opening remarks, Senator O'Mahoney made clear a desire to improve the patent system for the ordinary inventor. Being one of the most ardent advocates in the country of legislation on behalf of the individual inventor, I had come to the hearings with a long list of items of legislation which I intended to urge. But I mentioned not 1 of the items on that list, except 2 which were not really of the type relating mainly to inventors' problems. Why? Because of the lack of time, when so many wanted to be heard; and because other things seemed at the moment even more important to get across.

With such an example before us, it is easy to see that inventors' problems have a tendency to be put aside for another time. The same thing happened during the drafting of the 1952 Patent Act. Legislation to save the patent system from the courts was more important than legislation directed toward the peculiar problems of inventors. Furthermore there was danger that introducing any of the new thoughts would raise controversial questions which might delay passage of the bill. In any event, it seems obvious now that, unless very special efforts are made to take up the problems of the individual inventor, they will continue to be left by the wayside.

It seems doubtful that the full list of items which I had planned to discuss can best be introduced in a written statement, such as this. Support by the bar is probably necessary, and this statement is not likely to be widely read within the bar. Quite a few of the proposals are already found in published literature. See, for example, my article, "Proposed Program on Behalf of Inventors" in the November 1944 Journal of the Patent Office Society, page 769. See also the various reports of the successive inventors committees of the American Bar Association's section on patent, trademark, and copyright laws published in the patent section's annual committee report pamphlets beginning in 1947. Many and perhaps most of this committee's recommendations have failed to secure patent section approval.

In order to illustrate the field of legislation of the type which would be especially beneficial to the individual inventors, a few of the items will now be discussed.

Filing informal disclosures in Patent Office

Mr. Bruninga, in his remarks, gave some suggestion for the filing of informal disclosures in the Patent Office. According to his version of the plan, the Patent Office would even make searches. Various different types of this general proposal have been made from time to time. One of the simpler forms has been worked on by different inventors committees of the patent section of the American Bar Association. According to the form which they have proposed, the filing would be of the simplest possible type from the standpoint of Patent Office handling. Indeed, in their latest version, in the report of 1955, they recommended that the disclosures be kept by the Patent Office in a sealed envelope so that they would never even be read by the Patent Office, unless called for by the inventor to support a subsequent application of the usual form. Even in such subsequent application, the sealed envelope would not ordinarily be opened until the evidence within it should be needed in the event of an occasion on which the applicant would have to prove an earlier date than the filing date of this final application.

many have thought in the past. It is now becoming recognized that, since the patent system is an incentive system, the best public interest is not necessarily served by decreasing the incentive by extracting the full cost of administration from the inventors whose activities the system seeks to induce. Now that it is recognized that the Patent Office will forevermore be losing a substantial amount of money on each application on the average, a different philosophy as to fees seems to be in order. It is quite conceivable that the Patent Office financial reports will look better (if this is considered of any importance) if applicants are persuaded to insert new disclosure by amendment without a fee instead of by a new application with a fee which fails to pay for the additional work resulting.

Delayed filing of patent applications

This proposal to permit the filing of patent applications more than 1 year after a public use or published disclosure derived from the applicant's invention is included in the present discussion as an example of a change of law which is of especial interest to individual inventors for reasons other than saving money. It just happens that the individual inventor seems to be most often the victim of waiting too long to file an application. Tbis may be the result of financial considerations. It could also be that among the individual inventors (other than those who think every idea is a million dollar idea), the realization that a given idea has the commercial value to justify a patent application is slow to develop. Regardless of the cause, attorneys have experienced numerous instances in which an inventor decided to patent his invention, only to find that he was too late because he had put his invention in public use more than a year earlier. This is objectionable, not only because it defeats justice, but also because both the patent system and its functioning as an incentive to inventors as a class are hurt by every such instance of the defeat of justice to an inventor.

Until 1939, the period which is now 1 year had been 2 years. The considerations which led to a shortening of the period need not be sacrificed by the proposed change. The delayed issuance of patents could usually be prevented by a shortening period for response to successive Patent Office actions on the applications. Doubts that published disclosures or publicly used devices antedating a patent application date by more than a year are usable against a patent could be dispelled by requiring a delayed application to include suitable identification of any published disclosure or public use more than a year earlier, derived from the applicant. The statute providing the alleviation here proposed could also include a provision for shortening the term of tbe patent when it would otherwise last too long after the first public use or published disclosure, and a provision for protecting intervenors from any delayed patents as they are now protected from reissued patents.

Protection of inventors from unscrupulous practices of some advertising attorneys

Another type of problem of especial concern to individual inventors is the problem of protecting them from unscrupulous practices, such as seem to be indulged in by some of the very few patent attorneys or agents who acquire their clientele by display advertisements in popular magazines. It is my opinion, based on years of observation and backed hy a very small sampling of patents (those in one bound volume chosen indiscriminately a few years ago), that there is a disgraceful percentage of instances in which the independent patentee has been fleeced by failure of an advertising patent practitioner to give him honest advice and services.

This item can stand as an example of a field for congressional action without going into it in further detail. It can also stand as an example of the possibility of influence by congressional action short of legislation. Indeed, it is probable that the advertising practice which lends itself to the fleecing practices in question, would have been terminated by administrative action a few years ago, if the advertisers had not somewhere found enough influence to prevent the administrative action.

Flexibility in patent claim practice

It is recommended that some statute be enacted to reduce as far as is practicable the present rigidity of patent-claim practice. If the statute goes far enough, it can save money, speed the issuance of patents, and result in better justice.

It could save money in reducing at various points the money spent in connection with patent claims. First is the drafting of the claim; second, the examining of the claims and arguing back and forth on their wording; and third, the printing of the claims, and fourth, the studying of the claims by countless attorneys and others after the patent issues.

Let it not be assumed that the chief purpose of such a statute would be to permit simplification of claim style. Indeed, if the Commissioner of Patents should resist change of claim style to such an extent that no great simplification should be apparent for many years, the change of statute would still be desirable from the standpoint of obtaining better justice and reducing costs in other respects.

Improved justice by flexibility of claim interpretation

At the present time, relief is ordinarily refused a patentee unless he has in his patent a claim which does two things:

1. Defines invention by distinguishing from everything which has been done or published before, and from mere noninventive variations thereof.
2. Reads on the accused structure of the defendant. (Uncertain and limited exceptions due to unpredictable application of the doctrine of equivalents are here ignored.)

If all infringements were exact copies of the form of the invention patented, there would, of course, be little difficulty. Usually, however, the defendant has departed so far from the disclosed form of the invention that, with the benefit of wishful thinking, he believes he has not used the patented invention. To protect the inventive concept even when disguised by changes, it is the practice in soliciting patents to seek a claim which defines the invention as broadly as possible so that no matter how the defendant uses the inventive concept taught by the patent, he will lie within such a claim. It is not safe to rely on such a broad claim alone, however, because when drawn so broadly, it is likely to be of dubious validity. In short, it is likely to fail to perform the function 1 above of defining invention over all that has been done before.

Accordingly, it is the general practice to provide claims of intermediate scope, each a little more limited in its scope than the broadest or the next broader claim. The narrowest of this series of claims will try to bring into the claim everything which adds to the broad inventive concept some further possible patentability, so that this claim will have the maximum chance of being sustained as patentable.

Now if an infringer is so foolish or so disrespectful of patents, as to make an exact copy of the patentee's form of his invention, he will be sued for infringement of this claim of maximum patentability. If the infringer avoids making an exact copy by some minor redesigning, he will probably be sued under one of the other claims of intermediate scope having a little less than maximum strength of patentability. If the infringer so thoroughly redesigns as to avoid everything except the essential concept, he will probably have to be sued under only the broadest claim, one which is more likely than any of the others to be held unpatentable.

For example, if the inventor of the separable dress, for which claims were given above, had been entitled to do so, he would probably have included a claim similar to the one quoted but not specifying that the line of separation extends behind the sleeve. If the infringer made dresses in which the line of separation extended down the length of the sleeves instead of behind the sleeve, thus dividing the sleeve itself, he would have to be sued only on this broader claim here suggested. If, however, he should copy the feature of having the entire sleeve on the front portion of the dress, with the cleavage behind the sleeve, he would be sued under the claim quoted above.

Now, if the dangers of doing so will permit us to change the law so as to make unnecessary these claims of intermediate and narrower scope, we can accomplish several desirable things.

(1) We can save time and therefore money for the applicant and the Government. Perhaps the time saved will be considerably less than half of the time now spent on claims, because it is the broader claims which require most of the arguing back and forth between the Patent Office examiner and the attorney. However, there will be some time saving in ordinary cases. In a few cases where there is considerable time spent on the mere question of how many claims are necessary for adequate protection, all of this time can be saved.

(2) The patent can issue with fewer claims. At the least, this saves money in printing. Possible further savings are indicated below.

(3) The time spent in studying the claims of a patent will be greatly reduced. There is some possibility that in the small percentage of instances where a patent cannot be eliminated from consideration by the mere study of the claims which would thus be made quicker, the time saved in reading the claims

the same extent as now. Perhaps it is impossible to tell without experience whether, once the investigating attorney has been put on guard by such a broad claim, the further study would be quicker or slower on the average without the intermediate claims. It seems clear that there would be times when it would be slower, and times when it would be faster. It does not appear that the average would be so much greater as to preclude trying this change of law, which would certainly result in better protection for inventors.

The law could provide for a list of additive features to appear immediately preceding the claims to be available for consideration in conjunction with the claim. A simple list could serve as much better guidance than present intermediate claims. The law could provide that, unless the inventive concept utilized by the defendant is reasonably apparent from the claims and from this list, the granting of an injunction would be discretionary with the court. Of course, the law could make all relief under such circumstances discretionary with the court, but I am inclined to the view that an infringer who should have been put on his guard by the presence of a broad claim, even though invalid, should not escape scottfree. A law of this type would encourage a good enough list of additive features so that it would be relatively easy for the investigating attorney to see the full extent of any concept within the broad claim used by the structure in question so as to be able to evaluate intelligently the chances that this will be held patentable.

Another danger attorneys will see in the proposed system is that in litigation every patentee will be free to write his own claim to fit the litigation. Of course, it will not appear as an official claim in the patent, but it will appear in the form of a plaintiff's statement of the invention taught by the patent and used by the defendant. Perhaps the chief answer to this is that it is not a danger but a benefit. If we want inventions protected, this is the way to do so with the least danger that such protection will be thwarted by claim technicalities and rigidity of law. Of course, there will be times when the artful plaintiff can phrase a claim or statement of the invention with words which mean different things when read on the accused structure and when read on the structure of the patent. Claims of this type in a patent are very annoying, and may have misled some judges. But it is believed that claims of this type conjured up for a suit will not carry such weight with the judge.

Another danger is that the presumption of validity may be further weakened. However, it is not believed that this will be true, inasmuch as there will always be a broader claim which will have the benefit of presumption of validity, even though the patentee is not relying on it except in conjunction with further limitations. Indeed, the presumption of validity carries so little weight even now that there perhaps is no great point in worrying about further reduction. Certainly it would be far more than offset on the average by the ability of a court to find validity without finding a claim which fully defines all that is necessary to make up that validity.

It should be observed that the ideas of flexibility of claim interpretation and simplification of claim style go hand in hand. There can be considerably further simplification of claim style if the attorney seeking the patent knows that, even if he so simplifies the claim that it fails to define fully the inventive concept, that will not be fatal. We may find that very simple claims which clearly point to the inventive concept are much more satisfactory to everyone than our present claims which attempt a full definition.

An incidental benefit of the proposed statutory change is that it would save patents in which there are such difficulties of defining the invention that skilled attorneys fail. See *General Electric Company* v. *Wabash Appliance Corporation, et al.* (1938) (304 U. S. 364, 37 U. S. P. Q. 466). A defendant using an inventive concept taught by the patent and within the scope of its inadequate claim would not escape without at least paying some royalty to the patentee whose invention is used.

STATEMENT OF MURRAY ROBINSON, PATENT ATTORNEY, HOUSTON, TEX.

I have several suggestions for increasing the dissemination to the public of the information disclosed in patents, which in my view should be the prime purpose of the patent system. However, first of all it is to be noted here that the monopoly granted by the patent claims is usually not coextensive with the disclosure so that one can learn much from a patent specification that can be put into immediate use, and even if the reader of the patent specification decides he

(but without claims). These should be published from time to time in newly developing fields where practically the only literature on the subject is in patents; for example, transistors.

Very truly yours,

MURRAY ROBINSON.

STATEMENT OF FELIX A. RUSSELL, PATENT ATTORNEY WASHINGTON, D. C.

After a patent application has been filed, certain attorneys make it a practice not to keep the inventor fully informed as to the progress of his application, only answering letters from the inventor with mere generalities. To obviate such practice, it is my suggestion that the Patent Office instead of sending two copies of each Office action to the attorney of record as is the present practice, send one of such copies to the inventor. In this connection, I would also suggest that the attorney be compelled to send a copy of his amendment in each case to the inventor and that a statement by the attorney that he has so mailed a copy to the inventor be incorporated as a part of each amendment.

In order to give the Patent Office data with which it would be enabled to more accurately supervise the conduct of attorneys practicing before it, may I make the further suggestion that each application should contain a statement by the attorney telling the field of search made by him and the references cited to the applicant prior to the filing of the application or, alternatively, a statement that the inventor desired no search to be made.

I make these suggestions in all sincerity in the belief that it would greatly improve the services given by certain attorneys to applicants before the Patent Office.

STATEMENT OF HAROLD S. SILVER, PATENT ATTORNEY, MILWAUKEE, WIS.

In my 23 years of corporate patent experience I have found that for each abuse of the patent system such as was brought to light by the Hartford Empire case, there have been literally thousands of proper uses of the United States patent system which have benefited the inventor, the businessman, and the general public. These thousands of uses are not as spectacular as the abuses and hence do not make newspaper headlines and often go unheralded.

I have found that the inventor benefits from patents granted on his inventions because his ideas are protected from exploitation by others. An inventor in a corporation has an enlightened self-interest in creating improved products that the public likes and will buy. The commercial success of such improved products helps insure the economic well-being of the inventor.

The inventor gains increased recognition among his fellow workers when his invention is patented and the inventor's name becomes a part of Amercan history because it is on copies of the patent. He gains prestige and prominence as an inventor. He gains recognition in his company and may be promoted. He could build a business as a result of the invention. He may get paid money for his invention in the form of royalties.

In the past 23 years I have seen many inventors reap these benefits.

I have found that the businessman or corporation benefits by the United States patent system because patents help to pay the cost of development by preventing others from using the development without paying for it. To put it in other language, the businessman avoids the risk of having a competitor take advantage of a lack of development cost in his own organization and sell the new and improved product at a below-cost price. Patented ideas provide exclusive features that help increase sales. Patents indicate industry leadership. Patents raise employee morale by stimulating their creative thinking.

In my 23 years of corporate experience I have seen these benefits accrue to businessmen and corporations in many instances.

I have found that the patent system does benefit the general public because patents are an incentive to provide better products so that people can have more and live better. I have often seen the results of stimulated creative thinking brought about by enlightened self-interest supplied by the United States patent system.

This enlightened self-interest is that same interest referred to by Abraham Lincoln a hundred years ago when he stated: "* * * The patent system added the fuel of interest to the fire of genius in the discovery and production of new and useful things."

STATEMENT OF FREEMAN SMITH, INVENTOR, NORTH HOLLYWOOD, CALIF.

Any intelligent person who has time to spend a day looking at a file of patents will soon discover a truth about patents.

First, the number of them appalls one.

Second, the amount of them that are useless.

Third, the number held or assigned to others than the inventor.

Fourth, the number of patents held or applied for to the major corporations.

Many patents are good, ingenious, but lacked the proper timing and exploitation. There are many observations that make the role of the private citizen inventor shrinking in importance, even though they are as numerous as ever.

I think the Founding Fathers' ideas of an inventor made them favor the attic or barn or blacksmith inventor, whereas a trained laboratory scientist or mathematician is handicapped, as the clause "Obvious to anyone skilled in the art" penalizies these skilled and ingenious men as inventors. But even so their work is rewarding as work; the company takes good care of its stable of idea men. But the outsider is still in the cold.

The ingenious poor-man inventor is about extinct; he literally cannot now become a successful inventor.

The Government itself is confused on its aims and obligations. On the one hand its fosters monopoly and on the other it punishes monopoly; but in both instances it gives away many more millions annually to fostering "central intelligence" (spies in short) in international relations than it votes either for the Patent Office or antitrust department. So how interested really is the Government in the lowly inventor? A government that pays and treats "our" spies and informers better than its scientists and inventors is hard to understand by a simple inventor. The least it could do it seems is to make it possible to offer inventors a "scholarship" of a sort to incourage him to create. The Government could do more for those who want to build and create.

STATEMENT OF SAMUEL B. SMITH, PATENT ATTORNEY, SAN FRANCISCO, CALIF.

The patent fee bill, which probably will be reintroduced when Congress reconvenes, is a matter of considerable concern. I believe a majority of our Senators and Representatives, as well as the public, tend to couple Patent Office fees with Patent Office appropriations. While I believe doing so is a mistake, on the other hand, I believe that the Patent Office fees perhaps are too low and should be revised upward a bit. I, personally, would rather see the Patent Office a little closer to a self-supporting body, although, fundamentally, I recognize no sound reason why the Patent Office should be self-supporting. My experience has been that independent inventors, for the most part, are very ready to pay additional fees in the Patent Office if by so doing they can obtain quicker action in pending matters. Actually, the Patent Office fee paid is small, percentagewise of the total cost of obtaining a patent or the development cost which first took place.

From the standpoint of the independent inventor, I believe that a careful and mature consideration should be given to the possibility of encouraging risk capital in promoting inventions. Congress could aid in this respect by giving to bona fide investors in inventions additional tax benefits. Perhaps by study and review of proceedings leading up to the enactment of section 1235 of the Internal Revenue Code of 1954, as well as other subsections thereof, might be a starting point.

The individual inventor is also handicapped perhaps to some extent by the commitments required of certain corporations if he is to submit inventions. On the other hand, the corporations are in an awkward position where to avoid suits (many unjustified), they must protect themselves against the independent inventor who submits material without solicitation when there is so much chance that the corporation is already working on inventions of similar sort to the idea presented.

Another difficult situation which confronts the inventor of limited experience is that he usually is inclined to appraise his contribution too highly. The professional inventor normally recognizes that if 1 invention in 20 is good, that is, for instance, of primary importance commercially, he has reacbed an exceedingly high standard. This does not mean that the professional inventor would only file a patent application for 1 invention in 20, but he would be apt to realize acceptance of only ahout this percentage. The other 19 inventions out of the assumed 20 might not be commercially accepted or would represent less de-

wants to use the part covered by the claims he does not have to wait 17 years but can instead negotiate a license in most cases, and if not he is stimulated to design around the patent. In fact in my experience this latter aspect of patents is the one most productive of further advances.

The following are my suggestions for getting patent information into the hands of the public better than is being done today.

1. Increase size of type of patent specifications to its former size. Despite an increased appropriation the Commissioner of Patents seems reluctant to do this. Probably he has other factors in mind such as storage space, but these are only secondary considerations that should not outweigh the desirability of easy-reading type in patent specifications. The best edition of the Encyclopedia Britannica was the 10th or 11th edition, but the type is so small the encyclopedia is nearly useless.

2. Reduce cost of patent copies from 25 cents to the former price of 10 cents each. Formerly it was possible for a manufacturer contemplating a new item to order a whole subclass of patents. Now one must think twice before doing this because of the added cost.

3. Require patent drawings to be drawn to scale and the specification to state the scale, the tolerances, the materials, and other know-how. The patent should disclose an actual working device, not just disclose an idea. At present no one pays any attention to details of patent drawings because: "Patent drawings are not necessarily scale drawings"—In re Japipse ((C. C. P. A.) 86 P. Q. 70, 181 Fed. 2d 1019, at p. 1022, col. 2, lines 3–6). If patent drawings are not made to scale, the all-important know-how is left out of the patent disclosure and the public is getting only half of what is bargained for in granting the patent. Not only should the drawings be to scale to get them in the correct proportions, but the scale should be stated and dimenisonal tolerances specified so that one does not have to spend a lot of money experimenting to build a device disclosed in a patent. To avoid making the patent copies bulkier and avoid increasing the expense, the dimensional drawings could be kept in the application file for copying by persons interested. In case of electrical inventions, the values of the circuit constants should be given: ohms, volts, amperes, frequency, etc. In the case of chemical inventions it is to be noted that much precise data is presently given as to temperatures, pressures, weights, and materials. It should be required that suitable materials be specified in all patents regardless of their nature. Summarizing, the patent specification should convey the know-how. If the know-how is kept secret, the principal purpose of the patent statutes is defeated.

4. Requires patentees to notify Patent Office when patented invention has been put into use and to place on file the details of the design actually put in use. At present one can look through a stack of hundreds of patents and have no idea of which ways to accomplish something that has proved successful commercially. Each patent copy could be marked with an asterisk or other symbol to indicate whether or not it has been put into use. This would require extra work at the Patent Office just as does the marking of trademark copies to show their renewal, the filing of affidavits, and the like. If desired, an extra charge could be made for copies of patents marked to show use, but preferably all patent copies should be so marked. This again is a matter of getting the know-how to the public. Persons claiming that they cannot supply data for all designs of their patented product that have gone into use could be given the alternative of paying a special tax and could be required to give information directly to seekers of such data.

5. Revise the Official Gazette to publish an abstract of each patent instead of a claim. Patent claims, which must be drawn in broad language to cover all modifications an attorney can think of are necessarily very vague. Each applicant could be required to include in his specification an introductory paragraph giving an abstract of the invention suitable for publication in the Official Gazette. This would also help patent searchers examining the complete patent copies in the public search room in Wasbington.

6. Publish bound sets of classified patent abstracts. These could be easily prepared from the Official Gazette abstracts. They could be sent to the public libraries throughout the country so that patent searcbes could be made outside of Washington. This is similar to the British system of publishing abridgements of patents in bound volumes. The classification should be more precise than that of the British abridgements, however.

would be used up in more detailed study of the claim without the alleged help of intermediate and narrower claims as a guide.

(4) Protection of inventors to the full extent they deserve protection will be more sure. There will be no chance that, in spite of the attorney's care in providing a full set of claims, an infringer will be able to slip in between the claims and escape scot-free.

That can happen under present law (except that one who escapes is not properly called an infringer). If a defendant avoids using the details required by the narrow claims and can show that the claims broad enough to read on what he does are invalid, he escapes. He escapes in spite of the fact that, if the attorney had been omniscient, there might have been a claim of a scope intermediate those held invalid and those held not infringed, and which one additional claim would have been held valid and infringed.

To the patent attorneys, the dangers of such a flexible system will be so apparent that there is hardly need to mention these dangers except for explaining how they can be reduced, or for making clear that they are not as severe as they seem.

One is the danger of greater difficulty in determining whether or not a patent would be infringed by a structure on which a claim of intermediate scope could have been drawn. There are two stages of this determination. First is the stage of detecting the question. This stage would be easier and quicker; with fewer claims to read, the searcher could discard more quickly patents which do not raise any infringement question. With a given patent, he could make very quickly the determination of whether or not an infringement question exists, perhaps by reading a single claim.

If the single claim (or one of several claims, if there are several inventive concepts) reads on the accused structure, there is an infringement question. If nothing can be found in the prior art to show that this one claim is invalid, the complete determination will have been made as now; namely, that there would be infringement. The danger, if there is danger, of increased difficulty arises when prior art is found which does invalidate a broad claim. The attorney must then decide without the alleged aid of intermediate claims whether or not an inventive concept disclosed by the patent and of narrower scope than the broad claim is embodied in the proposed or accused structure. There are times when this further study is aided by intermediate claims. This is true whenever an intermediate claim, reading on the structure in question, fully specifies all of the inventive concept which is borrowed from the patent. It is submitted, however, that this ideal situation so rarely exists that, in fact, the intermediate claims more often mislead than aid.

The safest way to make an infringement determination in the type of situation which we have now come down to in our discussion is to study the full patent and its history before the Patent Office, study the considerations in the commercial activity in accordance with the prior art which led to the invention, study the results which have been accomplished by the patent (if it is in use), make up one's mind as to whether or not there is an inventive concept disclosed in the patent and used by the structure in question, and then see if any claim can be stretched or interpreted to give a court a good chance to say that that claim covers and sufficiently defines that particular borrowed invention. If the law is changed so that (provided only that there be a claim sufficiently broad) there is no longer any need for a claim which can be intepreted to be valid and infringed, this last step can be omitted.

Now, of course, we often advise our clients without going through all the broad analysis and study mentioned above, and in these instances we must, to a large extent, advise our clients on the basis of such guidance as we can get from the claims themselves. There are various factors, including a client's desire not to spend too much money on the investigation, which may make this abbreviated study necessary. There are times when it seems quite safe, but there are also times when it is not as safe as it seems. The wording of the intermediate claims, or even their absence, can mislead us under present law. We tend to have to much confidence that a broad claim is invalid for not including any of the limitations which we recognize might give patentability. We tend not to make ourselves see all of the things which may lie behind the broad claim and might lead a court into attaching considerably more importance to some apparently noninventive limitation in the claim than we did when we were contrasting it with the narrower claims.

The proposed law need not change the law affecting the outer limits of patent protection. Unless there is a claim in a patent broad enough to cover the structure in question under present law, the patent could still be ignored to

It would result in better justice by eliminating some instances in which an invention fails to receive deserved protection because of the form of the patent claims.

Simplification of claim practice can take two major forms: namely, style simplification and flexibility of interpretation.

Simplification of claim style

Probably the need for simplification of claim style would be reasonably apparent just by reading and attempting to understand a conventional patent claim. The one here chosen is much simpler than an average machine claim:

"A dress designed for production in sets having interchangeable portions of different appearance, each dress comprising a front panel and a back panel; marginally disposed easily separable means connecting said front and back panels at the side edges thereof; said front panel including a shoulder portion, a neck section, a front blouse section, one-piece sleeves having the front portions thereof permanently attached to said blouse section, and a skirt portion; said back panel including a shoulder portion, a neck section, a back blouse section having curved notched parts, and a skirt portion; and easily separable means connecting said shoulder portions together and similar means connecting the edges of said curved notched parts of said back blouse section to said sleeves, whereby the portions are adapted for replacement to effect various combinations." (Patent No. 2,722,686.)

It may surprise the uninitiated reader to know that the foregoing complexity of words is supposed to be the heart of the patent. Each claim is the definition of the invention, and is supposed to make clear what is within the protection of the patent and what lies without.

There are many patent attorneys who would gladly try to develop simplified styles of claiming, if the Patent Office would be willing to grant such claims and if it would be safe to rely on such claims in the patent. Think how much nicer it would be if the foregoing claim could be replaced by a simple statement such as:

"A dress in which either the front or back section may be replaced by another to provide different combinations, the sections being separable by separable means on a line extending along the shoulders and behind the sleeves."

The Patent Office is not to be criticized for its unwillingness to grant claims of this simplified type, because there is too much chance that it would be doing the applicant a disservice by giving him a claim which would be held invalid by the courts. At the same time the Patent Office is not wholly blameless because there are some minor simplifications of claim style which would be quite safe in the courts but which the Patent Office has not encouraged. In recent years, the Patent Office has shown some slight inclination toward being more liberal in this field of minor simplifications. The Patent Office memorandum appearing elsewhere in this record indicates a further recent improvement. However, these minor simplifications would accomplish so much less than the major simplification of style along the lines above indicated that this present paper will bypass detailed consideration of the minor simplifications to see what is necessary in order to permit the major simplifications.

The chief thing that is necessary to permit the major simplifications is a change of statute which will make them safe so that no patent will be held invalid because of a simplified style of claim. This wording may be a little too broad but if we should hedge on this broad pronunciation by a limitation as narrow as "provided that the invention is adequately defined," we would probably defeat the purpose. A compromise might be: "*Provided*, That the invention or inventive concept is reasonably indicated."

Simplifications of the major type discussed above could only be fully encouraged by a statute which makes clear that even if the claims fail to define the invention, or fail to distinguish the invention from that which has gone before, the patentee will not suffer loss of rights which he would have had by a satisfactory definition.

Such a change would not necessarily be opening the door to whatever kind of silly claim an applicant might choose. It would still be the duty of the Commissioner of Patents to make sure that the claims adequately serve their purpose. Except as he might be overruled on appeal, he could refuse to permit any simplifications which would be objectionable. The effect of the proposed statute would be that, once the Commissioner of Patents allowed the patent, the failures of claim draftsmanship to define invention, if invention is present and used by the defendant would not cause loss of rights by the patentee.

Informal disclosures of this general type would serve a very great need from the standpoint of the individual inventor. Just how much it would benefit him would depend largely on how much effect is given to these informal disclosures. They would be of greatest benefit to him if given the identical effect as to proving his date of invention as if the same disclosure had been included in a formal type of patent application. With this full effect, the inventor could, for only a few dollars, obtain, on a temporary basis, the same safety that he now obtains by filing a patent application, assuming the disclosure to be a complete disclosure of the invention. Admittedly this is an assumption which would not always be justified. There would be many instances in which the inventor would file an inadequate disclosure. One of the inventors committee reports worked out with considerable care a form of filing receipt and warning which should he sent to the inventor by the Patent Office. Under the boldly-printed word "Warning," the inventor would be advised to see a patent attorney because of the fact that, quite often, the disclosures are too inadequate to be of any value to the inventor.

Inventors who had made an adequate disclosure to the Patent Office in this inexpensive manner would have a safe period of perhaps 6 months or a year, depending on the provision of the law, in which to investigate the marketability of their inventions, or to further improve the invention before filing the relatively expensive patent application.

Adding new matter to pending patent applications

Under present law, it occasionally becomes desirable to replace a pending application with a substitute application that is very similar to the original application but includes a litle additional dsclosure. Accordng to present practice, additional disclosure cannot be added to the old application. The present proposal to change the law so that it could be added to the original application, at least subject to the discretion of the Commissioner of Patents, is one which would have no direct effect, except the simplification of practice and the saving of a few dollars. The indirect effects would be in giving the public the benefit of the additional disclosure when it is not now considered sufficiently important to justify a second application, and in further encouragement of individual inventors and small corporations by minutely lowering the average cost of patent protection. In the eyes of larger corporations and the attorneys who think in terms of the work of such corporations, the amount saved is not considered worthwhile. Nothing could be done with the simplified practice that cannot be done now by filing a second application.

One might think that the cost to the inventor of filing a second application with only a small additional disclosure added would not be much more than the cost of adding that same small additional disclosure to a pending application. Unfortunately, it simply does not work out that way. Besides the cost of the additional Government fee, and at least temporary drawings to serve until the drawings of the first application are transferred to the second, there is usually a surprisingly high charge for the attorney's services. Even if the attorney is willing, under the circumstances, to waive his minimum fee for filing an application, there is enough detail to be watched so that a great deal more time is going to be spent in the end, some by the attoruey and some by his staff, than if the additional disclosure had been merely added to the original application by an amendment.

The added disclosure would in some instances be so simple and concise that not one minute's additional time would be required by the examiner. Indeed, it would sometimes save his time by making it unnecessary for him to further consider a question of the adequacy of the original disclosure. The Commissioner of Patents should have discretion to refuse to permit the added disclosure when it is of such nature that filing an entirely new application would clearly be better practice. However, it would be rare that an applicaut would endeavor to amend an application under those circumstances, assuming the law is so drawn that the legal effect would be the same whether the additional matter is added by amendment or by a second application. In both instances, the applicant would be entitled to the benefit of the original filiug date to the extent of the original disclosure, and to the filing date of the added disclosure for what is found only in it. An incidental minor advantage of the proposal is that it would be very simple for the Patent Office to print the patent in a manner which shows what was added and the date of its addition. Under present practice, the printed patent gives no clues to the differences between the first and second applications.

When the addition of new disclosure to a pending application requires more work by the examiner than if it had been in the application from the start, an extra fee should be required by the Patent Office, at least in the discretion of the Commission. However, the collection of such a fee is not as important as

the problem but is not especially fitted to perform the judicial task of extracting a solution by subjecting the problem to the filtering process of many strata of knowledge.

Very recently, Judge Harold Medina in an address to the patent bar, widely published, described the distressing experiences he encountered in trying his first patent case. The address was very entertaining, as it was meant to be. However, it did not support the inference which some have drawn from it that the cure for such judicial distress is a special patent bench. Every new judge is confronted by cases in fields of law in which he had not previously practiced. Every competent judge overcomes this handicap of lack of familiarity within a reasonable time. If the patent law has already become so esoteric a mystery that a man of reasonable intelligence cannot comprehend it, then something has gone seriously wrong with the patent law. If that is so—and I do not hold this view—the cure lies in correcting the law, not in tinkering with the bench.

STATEMENT OF GEORGE D. RILEY, MEMBER, NATIONAL LEGISLATIVE COMMITTEE, AMERICAN FEDERATION OF LABOR—ADMINISTRATION OF THE UNITED STATES PATENT OFFICE

Members of the American Federation of Labor include a great many who, in their own right, are inventive. In this respect, certainly labor presents an excellent cross-section of American ingenuity. Labor has produced a full share of patentees and applications for patents.

We are more than passingly interested in what goes on in the field assigned to the United States Patent Office, Department of Commerce.

What seems of greatest moment is an invention—a patent—which will enable the Patent Office to function far more successfully and with a higher degree of promptness than is in evidence at present.

The best solution offered by the Patent Office itself appears to be jacking up the fees for services to inventors. This would seem to be only an apparent solution to the problem which is getting greater with the passing of each month. The easiest recourse in Government at any given showdown is more revenue.

Increasing revenues constitute an overall approach to whatever problem wherever to be found in Government. We see the same thing proposed in the Post Office Department and in practically every arm of Government where direct service to the public for a price is rendered. Whatever is wroug in the Patent Office is:

1. Not the fault of the patentees, so far as we can see.
2. Will not be solved only by adding fees upon fees.

The Congress, at least in the current fiscal year, has come to recognize its own responsibility, belatedly it seems, but with a substantial increase to $14 million, an increase of $2,500,000. This was more than the amount requested by the Patent Office by the Bureau of the Budget by $2 million.

Even as the Congress has discovered the monetary remedy which we hope will be continued by the increasing portions, much of the solution for the morass into which the Patent Office has sunk lies in restoring the work force to its former strength and beyond. The need for patent examiners continues to be basic and, in our opinion, anything which can be done to set up an even flow in determination of interference cases will be all to the good.

The going average rate of around $4,000 for a junior examiner long since has become outmoded, yet the job is basic for moving the traffic in the bureau. I think almost everyone will agree this is true.

It is believed your committee will be in full agreement with the words of the House Committee on Appropriations in its report for this fiscal year which said, in part that:

"* * * there is close to a 4-year hacklog of patent applications at the present time. The committee is in full agreement that every effort must be made to place this work on a more current basis as rapidly as is feasible and practicable * * *.

"* * * The Patent Office was established as a constitutional agency designed to protect the individual and serve the public. At no time was it contemplated that it should become self-sustaining."

I have avoided discussion of technical phases. I believe your committee has or will receive these from other sources. The main purpose of the present statement is to express our interest in an orderly flow of routine in an agency which can unlock many doors to the need for a better tomorrow we hope is in store for this Nation.

The popular conception concerning inventors is that they seldom possess business acumen. This conception is usually correct. The inventor has, naturally, a different type of mind from that of the capitalist. If his mind worked like a capitalist's mind he would be a financier and not an inventor. Nature endows each of us with prerequisites for the perpetuation of our special aptitudes. If the millionaire manufacturer had to invent the machinery to produce as he went along, he would never have become a millionaire. No one censures the manufacturer because he is concerned with production rather than construction. But the inventor is apt to be considered an eccentric because he is seldom money-minded. Why? As Emerson's squirrel said to the mountain, "If I cannot carry forests on my back, neither can you crack a nut."

Because no man can do everything, and the genius elects to follow his urge rather than to pursue the dollar, he is neglected and taken advantage of, while those who only pursue the dollars have the world's goods at their command. The rare powers of the genius deserve that others should pursue the dollar for him or at least not grab it away from him once it is within reach.

The fame and recompense for an invention rightly attaches to the mind that made the formula which contains all the details rather than to the manufacturers who make their gain by it; but the multitude cannot see the house in the ground plan. If we want to live in a better world, we must encourage those who are able, or at least willing, to build it.

The Government spends for protection against criminals; why not for the constructive, positive and enriching values—for its creative geniuses. The world spends money for so many useless things—things of transient interest, of flippant purpose, of even negative or destructive quality. Such things should perhaps carry not a luxury tax, but a creative tax, so that a creative fund could be established to overcome the difficulties of mental giants. The public does a good deal for its weaklings. Often just as misfit is the "strongling" who often holds in his hand, heart, and head, the answers to our crucial problems.

STATEMENT OF HON. SIMON RIFKIND, FORMER UNITED STATES DISTRICT JUDGE, NEW YORK, N. Y.

(Reprinted from American Bar Association Journal, vol. 37, p. 425 (1951))

Periodically one hears the suggestion that patent cases should be tried before patent judges. The proposals take a variety of forms but they all revolve about the proposition that the judicial product of patent litigation would be improved if the trials were conducted by judges specializing in patent cases.

I deny this pivotal proposition; consequently, I am opposed to patent courts or patent judges.

The highly industrialized society in which we live has a great appetite for know-how. Such a society elevates and aggrandizes the position of the expert. His is the voice with the ready answer. His opinions become the facts upon which lesser mortals—laymen—risk life and fortune.

Against the citadel of the expert I tilt no quixotic lance. My contention is that the judicial process requires a different kind of expertise—the unique capacity to see things in their context. Great judges embrace within their vision a remarkably ample context. But even lesser men, presiding in courts of wide jurisdiction, are constantly exposed to pressures that tend to expand the ambit of their ken.

The patent law does not live in the seclusion and silence of a Trappist monastery. It is part and parcel of the whole body of our law. It ministers to a system of monopolies within a larger competitive system.

This monopoly system is separated from the rest of the law not by a steel barrier but by a permeable membrane constantly bathed in the general substantive and procedural law. Patent lawyers tend to forget that license agreements are essentially contracts subject to the law of contracts; that infringements are essentially trespasses subject to the law of torts; that patent rights are a species of property rights; and that proof in patent litigation is subject to the laws of evidence. Changes in all these branches of the law today have an effect on the patent law as well. As long as judges exercising a wide jurisdiction also try patent cases, so long do the winds of doctrine, the impulses toward slow change and accommodation, affect the patent law to the same degree as they affect the general body of the law.

In a democratic society the law, in the long run, tends to approach commonly accepted views of right and wrong. Thereby it continues its hold on the respect and allegiance of the people—in the last analysis its major sanction. Once you

as possible, as examples in my book, Elias E. Ries, Inventor, plainly testify. But you could no more stop him from inventing than from breathing. Everything else was a detour. To be sure, his ultimate goal was to make some money, but he wanted it only to finance more work. His progress along the way was not that of an amasser of wealth but only to use it in furtherance of his work.

My father did not succeed either in making his fortune or in personally introducing his inventions into use, though today society is enjoying the fruits of his labors.

Sometimes after working over long periods to put an invention on a business basis, he was forced to admit that the public was not yet receptive, and had to leave it in abeyance to take up something that might prove remunerative. Many of his patents expired before he could realize anything on them, due to lack of promotional support, and many of our corporations today are resting on the foundation of his uncompensated toil and genius.

My father would explain, "I have been obliged for many years to content myself with filing such patent applications as I could in order to protect my rights, and to refrain from permitting them to go to allowance, as far as this was in my power, until I could see my way clear to pay the final Government fees, even at the risk of delaying the subsequent exploitation of the invention."

If the Patent Office made more thorough examinations before the whole slow process of awarding a patent, it could reject large quantities of useless ones and could issue fewer and better patents that would be far less subject to infringement, interferences, and other ills. Court procedures would then be simplified, speeded up, and court costs reduced.

Many of the inventions thus far patented are admittedly trivial, impractical, or useless. If larger funds were available for the Patent Office, more complete investigations could be made before rather than after issuing a patent. As it is, the timing of the thorough search is wrong. Now the inventor pays first for something worthless. He pays in various stages and installments—applications, allowances, etc. It should be possible that he pay an application fee and get for that a thorough rather than a casual search, that will tell him at the outset whether it is worth his while to proceed, not wait until he has his fancy document with a red seal and blue ribbon. The way it is now, the inventor not only creates, but pays for the privilege of doing so. Though he allegedly has 17 years of so-called monopoly, he actually has nothing until he promotes it, and this can only be done, if at all, by publicizing it to the very persons who by virtue of being able to manufacture it, are his competitors.

It is one thing to invent a device, another to obtain a patent for it, and still another to sell it. Powerful corporations find it easy to circumvent a poor inventor. And usually only a powerful corporation could be a proper user of the immense projects in which may father worked. If a patent is worth anything at all, it is apt to be thrown into a patent pool created to evade the antitrust laws, something never contemplated by our Founding Fathers. Further, such a pool makes it almost impossible for an inventor to negotiate for the sale of an invention. He is reduced to one possible buyer who dictates his own terms. And as Herbert Hoover has stated, there is a general belief in big business that by invoking technicalities, subterfuge and delay, the ends of justice can be thwarted by those who can pay the cost.

The patent laws were presumably developed to encourage invention. This idea is obsolete, as an inventor cannot help inventing, no matter what, and will indeed knock his head against Everests of discouragement. But what he does need is more adequate protection, and this has been overlooked in present patent practice.

The Government does not guarantee the validity of a patent, but after taking the inventor's fees, leaves him to establish his legal rights in an equity hearing so tedious and expensive that few can afford it. Not only has the cost of obtaining patents increased, but the cost of patent litigation has also soared. Worst of all, there is no assurance that a patent will be sustained after it is granted and sued on. The Federal courts, including the United States Supreme Court, have been demonstrating increasing opposition to inventors and to patents. In the famous talking-picture suit of my father, in which millions of dollars and all the great motion-picture companies were involved, the Supreme Court merely "decided" not to reopen the case, though the evidence clearly showed that the invention was being taken away from the rightful owners.

Out of hundreds of patents sued on during the last few years, only a handful were sustained. Are such situations intended to encourage inventors?

It would also seem desirable to have one patent appeal court instead of the expensive way of taking a patent suit through nine circuit courts.

of these matters in the case of the truly creative prolific inventor that makes the Patent Office an ogre to him. In my father's day he paid $30 for the preliminary fee plus an extra dollar for each claim over 20. Some of his applications consisted of more than 90 claims. After an application is filed, then an examiner searches all past records for similar devices. If nothing of a conflicting nature is found, the patent is granted for an additional $30 (the actual figures may be higher now). Usually something is found bearing upon the same matter. The inventor is privileged to amend his specification so it will not conflict with the other. If the amendments are not returned within a year, the claims previously allowed are all forfeited. If an amendment is presented within a year and the claims are found to be allowable and it is then found to conflict with a pending application, then comes what the Patent Office calls an interference, which is a proceeding to determine the priority of invention between two or more persons claiming substantially the same patentable invention. Again the claimant with the most money can fiuance his patents first, while the poorer one must delay. My father lost important patents for this reason. A very meager purse tormented the spirit of the man, making an agony out of the vast amount of patent work involved as a corollary to his ceaseless creativeness. The Patent Office, which should have welcomed him with open arms if the spirit of its founding had any significance, on the contrary drained him of time, of money, of energy, of peace.

After all tbis, when a patent has been finally obtained, it is regrettably common knowledge and practice that plenty of people are unscrupulous enough to infringe upon the patent. The inventor is legally entitled, by virtue of his patent, to a 17-year monopoly for the prevention of this very thing. But he cannot enter a factory with an ax and break down his opponent's machinery. He must get lawyers. Then the opponents may say that the inventor's claims are too broad; that 50 years ago someone made something like this which worked and that patent has expired. Or they may have made some childish little change in some part of the invention without any basic effect, by which they pretend to dodge the issue. But even if none of these things has occurred, the inventor must wait a number of years until the opponents become wealthy as a result of his invention in order to prove that he has sustained damages. Then the opponents, rich on his inventor's invention while the inventor is poor, can by sheer weight of wealtb, afford a better and bigger fight.

The patent system should be strengthened by making it mandatory upon the courts to sustain patents once they are granted, but giving objectors a chance to protest before the patents are granted. It behooves the Patent Office in its contract with the inventor under which it offers him a limited monopoly for disclosing his invention, to see that this protection is maintained without putting him to additional hardship and expense and to see that none may trespass upon his right. We have laws against kidnaping and other types of mispropriation, but the inventor's chances in preserving his rights are very slim.

The certainty of the date of expiration of a patent also places the inventor at a distinct disadvantage with reference to the public. He is at the mercy of manufacturing monopolies or operating corporations who wait until a patent expires before using it, thus avoiding its purchase from the inventor. Inventors are habitually compelled to sacrifice a lifework for this cause. How would the storekeeper like it if there were a plan whereby after a limited interval, anyone could come in and appropriated his merchandise without paying him anything? If the inventor, allowing his property to revert for all time to his Nation, is granted the use of his creation for less than a score of years, he should surely be secured against being plundered by the law as well as by the lawless. In every other phase of business, a proper portion of the cost is added for each person involved, whether miner, farmer, transporter, manufacturer, wholesaler, retailer, and a whole series of interested people. Only the inventor gets no allowance on the product for which he is responsible in the first place.

The most obvious suggestion would be that the patent should belong to the inventor until disposed of commercially, without reverting to the Government after 17 years merely to be appropriated by people who wait for it to expire with no reward to the inventor. The patent should further, I think, belong to the inventor not 17 years after its date of issue, but for 17 years after its actual utilization in industry, so that royalties would be effective a total of 17 years, which I believe is the intention and spirit of the patent monopoly as granted.

Why should there not be an amendment to the patent law that the inventor be compensated whenever his invention is used by industry even if the invention has passed its 17th year? This would mean that manufacturers would not

Clearly there are both good and bad monopolies, both legal and illegal. The problem is to distinguish them, a problem on which no light is shed by the defeatist attitude of the writer who said that there is no reconciling the patent laws and the anti-trust laws because the one creates and the other condemns monopolies. This is not simple thinking, it is an avoidance of thinking.

There is a very simple test for telling a good monopoly from a bad one. It was well known to the English when, in 1623, by the statute of monopolies, they sought to abolish monopolies—excepting patents for new inventions, and incidentally, for political reasons, the Crown monopolies of printing, saltpeter, gunpowder, great ordnance, and shot. Lord Coke, at the time, clearly defined an illegal monopoly as one which restrained the people with respect to "any freedom or liberty that they had before" (3 Inst. 181, ch. 85).

The distinguishing characteristic of a patentable invention is that it is never something the people had before, because it is not patentable unless it is new.

Beyond that, however, we have for over a century required more than mere novelty. How much more has of late been a considerable problem to all concerned.

INVENTION

This brings me to the requirement for invention, created by the judicial branch and now, for the first time, codified in the new Patent Act by the legislative branch of the Government.

It was long ago understood that, to carry out the constitutional purpose, patents could not be granted for "every shadow of a shade of an idea" and that something more than mere novelty and utility must exist to justify them. The philosophy underlying this thought takes us right back to the basic distinction between good and bad monopolies. The requirement of invention has had a single simple function—to prevent private monopoly taking from the people, even for a limited time, the kind of improvements which would be expected to come spontaneously from one skilled in the art, presumed to be familiar with all the prior art, whenever required to effectuate a desired result. These improvements the public would get in any event.

In codifying the requirement for "invention" the new law, in section 103, does so in language which the House Judiciary Committee's report says it hopes "may have some stabilizing effect." The provision is that a patent may not be obtained, though the prior art fails to show the same thing, if the differences "would have been obvious at the time the invention was made to a person having ordinary skill in the art."

Clearly this makes obviousness the criterion.

The phrase "at the time the invention was made" requires it to be adjudged, so far as is humanly possible, without the benefit of hindsight wisdom.

Furthermore, the courts need no longer be concerned with whether the invention was made by flash or by sweat, by research or feminine intuition, in view of the new provision, also in section 103, that "Patentability shall not be negatived by the manner in which the invention was made."

This is a legislative decision that a temporary patent monopoly is justifiable, and in accordance with public policy and the constitutional purpose, if the subject matter patented is new, useful, and unobvious.

To be sure, the one who must judge is still faced with some of the old problems and, in the final analysis, his judgment will be subjective, for it is nearly as impossible to apply a yardstick to "obvious" as it was to apply it to "invention."

It is significant, however, that the words "invent" and "invention" are used in the new statute only as verb and noun, to refer to the act of the inventor and its product exclusively. What we have been in the habit of thinking of as the requirement of "invention"—and the sooner lawyers and judges break the habit the better—has not been made statutory by the use of that term, but only in terms of nonobviousness. Consider the title of section 103, the only section dealing with the subject. It is "Conditions for patentability; nonobvious subject matter." I can tell you that the use of the word "invention" in this connection was deliberately avoided because it is so vague as to be essentially meaningless and it trails behind it thousands of "encysted phrases."

I doubt that one can justify a concept, which may yet rear its head, of raising or lowering any overall standard of obviousness as has been attempted with the concept of "invention." It is a question to be determined in each case, according to the level of development in the particular art involved, and, as before, from the viewpoint of the fictitious character of our field, the man having ordinary skill in

It is our sincere hope that some legislation will be brought before Congress to simplify patent application in this country; to speed up patent awards once formally applied for; and, if possible, to find some way to make it possible for the little man to protect his ideas since he is unable to contend with large business in this field.

STATEMENT OF EDWIN L. REYNOLDS, TECHNICAL ADVISER, UNITED STATES COURT OF CUSTOMS AND PATENTS APPEALS, WASHINGTON, D. C.

DECEMBER 28, 1955.

Patent Office rule 272 (b) contains a provisions that "By agreement of the parties, provided the Commissioner consent, testimony may be taken before an officer or officers of the Patent Office under such terms and conditions as the Commissioner may prescribe."

That provision has been in the rules since 1949 but has been invoked only once. In that case each party felt that he was being harassed by the other, and that the presence of an officer from the Patent Office would have a sobering effect, which turned out to be the case, so that everyone was satisfield.

However, it will be noted that both parties must agree to the procedure and that one condition necessarily imposed by the Commissioner is that the parties shall pay the expenses of the attending officer. Moreover, since the determination of priority is committed by statute to the Board of Patent Interferences, rulings by a single hearing officer are advisory only, and he acts really as a moderator. Any provision permitting a hearing officer to make binding rulings would require a change in the law.

While there have been proposals for such changes from time to time, it is my opinion, based on 10 years of experience in the Patent Office Interference Division, that there is no compelling necessity for such a change. The present practice is satisfactory except in a few exceptional cases and those may generally be handled under the supervisory authority of the Commissioner.

EDWIN L. REYNOLDS.

STATEMENT OF GILES RICH, PATENT ATTORNEY, NEW YORK, N. Y.

I accept the invitation to submit a further written statement for inclusion in the published hearings. What I have to say bears on the problem of the standard of invention. Stated in another way, it is the problem of the antagonistic attitude of some courts toward patents.

It is my opinion that the new Patent Act of 1952 (in the writing of which I participated) contains a basis for the amelioration of this situation. So far, the only judge to see clearly what was intended is Judge Learned Hand, in his very recent opinion in *Lyon* v. *Bausch & Lomb* (106 U. S. P. Q. 1) (in which a petition for certiorari was denied).

Permit me to develop my thoughts on this subject. I do not have a formula beyond the continuing expression of ideas for persuading other courts to Judge Hand's point of view, that the new law has turned the clock back some 25 or 30 years on the "standard of invention," but I can explain why I think this is sound reasoning—not to say strictly in accordance with what the drafters of the act intended.

It is my observation that truly great thoughts, principles, and doctrines are usually capable of simple expression. Consider the Ten Commandments, the Golden Rule, and Einstein's formula for atomic energy, $E=MC^2$. Consider the constitutional foundation of our patent system, the grant to Congress of power "to promote the progress of * * * useful arts, by securing for limited times to * * * inventors the exclusive right to their * * * discoveries." There, in 20 words, are the fundamentals of an incentive system of unmatched productivity.

Perhaps some will say I have misquoted the Constitution. I did omit some words, but only the words relating to a distinct matter, copyright, which, due to a historical accident, was lumped with patents.

The same clause, of course, gives the power to promote "science" by granting to authors for limited times the exclusive right to their writings.

This union of two thoughts has long been a cause of confused thinking and has unnecessarily complicated many a brief and opinion. Confusion impedes the machinery of justice.

the United States, through its Patent Office, shall stand back of the findings of that Office in relation to the grant of the patent. Thus the present continual jeopardy to the validity of a patent will be removed as the grant would become a positive action.

The action necessary to put the suggestions made in this proposal into effect are simple: the Congress would pass legislation to strengthen the Patent Office so that its findings could be considered to be incontrovertible; and legislation would be required to remove questions of validity, anticipation, et cetera, from the jurisdiction of the Federal courts as these matters would have been determined by the appropriate agency, the Patent Office.

The real beneficiary under this proposal is the individual or small inventor, who would actually receive the security he has been led to expect as a part of his patent contract with the Government; and since the whole structure of the patent laws works for the ultimate public benefit, the public will profit from the protection thus afforded to the inventor. This proposal takes nothing from the public, but gives security to the inventor so that the public may benefit from the inventor's activities.

STATEMENT OF JAMES NAYLOR, PATENT ATTORNEY, SAN FRANCISCO, CALIF.

Were I able to attend the secoud Conference, as invited, I would ask that every reasonable effort be made in all quarters, including the Congress, to give greater sanctity to the work of the Patent Office in its examination of inventions and the issuance of patents. This would dampen the seeming enthusiasm of many of our courts for "second guessing" the work of the Patent Office as though a word game were being played between the executive and judicial divisions of our Government.

Our patent system would be immeasurably strengthened if we could cause, by appropriate means, the following words of Judge Orr, of the United States Court of Appeals, for the Ninth Circuit, to be universally adopted and realistically applied as a truism. Speaking in *Patterson-Ballagh Corp. et al.* v. *Moss et al.* (201 F. (2d) 403, 96 USPQ No. 6,208), Judge Orr said:

"The presumption created by the action of the Patent Office is the result of the expertness of an administrative body acting within specific fields and can be overcome only by clear and convincing proof."

I wish the subcommittee great success with its work and trust I may be able to participate on its program in time to come.

STATEMENT OF JOSEPH N. PARKER, INVENTOR

Senator O'Mahoney, I am glad to note you are trying to set up some reform in the patent system. Twenty to thirty years ago I could get a simple patent for a total cost of $95 and about a year's time. Now the cost is almost prohibitive particularly the independent inventor and takes so long that he is at a great disadvantage in marketing or getting any returns on his investment.

I wonder if it would be practical for the Government to issue the patent for a nominal fee, retain title to the patent and issue license to use to all comers and then share in the royalties with the inventor. This would prevent patent monopoly and aid industry to take advantage of all improvements and also help the inventor to get some compensation for his work.

It is possible that this arrangement could be made upon request of the inventor, that is the sharing in returns from the patent, but where corporations want patents and have ample facilities to develop and exploit them, then they may get patents in the usual way. I sincerely hope some improvement can be set up for I have two patents going through the mill right now and have no idea when I can be able to market them.

The suggestion that the Government issue patents and retain title, marketing and share in proceeds of any license and royalty arrangement with the inventor surely would expedite the whole patent procedure and relieve the inventor of much work for which he is poorly fitted. The only additional suggestion I can make right now is that some regulation be set up on patent attorneys and their practice which in some cases are inclined to take advantage of the inventor and his enthusiasm and inexperience.

might be willing to collect information on this in cooperation with your subcommittee if your facilities and funds do not permit.

But, if you have a good sound analysis of the problems of the Patent Office, and can help to cure the present ills, particularly by an added interest in Congress and adequate appropriations, then we might have a chain effect which would go back to this very important ingredient on scientific talent which we must have for national survival.

In closing, I would like to mention one more factor that I have observed over the past 25 years which has some bearing on the whole problem. It does not seem to me that the individual inventor today is as self-reliant as he was 25 to 30 years ago. He will not make the sacrifices, work the hours, and put forth the effort to bring his invention to fruition or to a point where its commercial potentiality can be observed to the degree that I recall up to possibly 1940. If that is a general situation, then, of course, legislation will not remedy a personal quirk. You may hear during the course of your hearings the complaint that large corporations refuse to consider the inventions of individual inventors outside their organization. For the past 15 years, in particular, all inventions submitted to 90 percent of my corporate clients were cleared through my office before the corporation would look at the invention. This was to protect the inventor as well as my client and avoid misunderstandings and improper charges of appropriation. During that period an overwhelming percentage of ideas submitted were only in a very preliminary stage, and oftentimes represented simply the ideas of any man on the street, who would see a problem and quickly think of a solution. Of course, the members of the engineering and management staffs of our corporate clients had often seen the problems and worked out a solution long before the outsider. On the other hand, I have very clear recollections of individual inventors in our office and individual inventors submitting inventions to my clients up through the late thirties where the invention had been carried to a point that a minimum amount of work was needed to be done by the person who would take over, finance, and promote the invention.

STATEMENT OF MAYNARD D. MCFARLANE, INVENTOR, CORONA DEL MAR, CALIF.

I am a research scientist whose work consists in advancing the state of the art in my line of endeavor. My efforts have been recognized by the award to me of fellowships in technical and scientific societies (the American Institute of Electrical Engineers, the Institute of Radio Engineers, and the American Association for the Advancement of Science) for my contributions to facsimile and radar: by the grant to me of 23 United States patents; and by the presentation to me of the Army-Navy certificate for outstanding scientific contributions during World War II.

Some of my patents cover basic improvements in the art of facsimile transmission, and are being infringed by present facsimile systems. These systems are controlled by large corporations, and an approach to each of them has produced, in essence, the response: "Sue us, and we'll pay when the courts have held your patents valid." The United States Government has taken a similar stand, although I donated a royalty-free license to the Government during the war years.

As an individual, or a partner in a small enterprise, such litigation has been a financial impossibility. My patent holdings have been evaluated by three eminent patent attorneys who appeared before your committee, and their efforts to realize (without litigation) even a portion of the dollar value placed by themselves on my patent portfolio has been completely without success.

The late George Ramsey, my friend and for many years my patent adviser, repeatedly said that the present patent system was not for the little man or the individual inventor: a patent requires expensive litigation to enable the owner to enforce the property rights of the patent grant. Reluctantly, I have come to accept his viewpoint: I am disillusioned; I have applied for and been granted my last individual patent. I have many patentable inventions in my files, but any further use of the patent system for my inventions will be by those for whom I am doing work.

The California Institute of Technology has accepted from me the gift of my active patents. It is my hope that the efforts of the institute will produce for the university financial benefits which I personally have not been able to realize.

developed by your subcommittee, would justify the extreme swing to invalidation which we have seen. The quality of the Patent Office examination has not dropped to the degree indicated by court invalidation, nor do I believe that the work of the patent bar has been so inferior that the patents are much less strong than they were. The Patent Office lost some highly capable and experienced examiners by what appears to have been an ill-advised move to Richmond, Va., during the war. Both the Patent Office, and the patent bar have been handicapped since 1942 by losses and inadequate replacements as a result of World War II, and the Korean war, but again, it does not seem that these two conditions should have reduced the quality of issued patents to the low degree indicated by court invalidations.

There is an important consideration here, however, and that is that many important references in the prior art that show up when a patent is litigated were not discovered by the Patent Office. That goes more to the matter of classification than anything else, and I believe one of the most important assignments for your subcommittee is to look at this question of classification within the Patent Office and its effect outside. Then if you can suggest a remedy in the way of appropriations and help to the Patent Office which will bring classifications up-to-date, the results will be most worthwhile.

So that there will be no thought that I am saying that all the patent ills of the inventor and small business now are attributable to the courts, I recognize that patent examiners are human as are patent attorneys. Both have fallen down at times, as they probably have always done. When that is the case, a patent may be invalidated. But, the overall record since 1935 cannot be attributed to this cause.

It would be interesting to see over the last 20 years for those patents that have been held invalid, how many of the cases were decided upon new prior art that was not cited by the Patent Office. And, it would be interesting to see how these statistics compared with a prior 20-year period. There might be two causes for the condition. First, if you compare the years of experience for the examiners prior to moving the Patents Office to Richmond, and then look at the same factor today, I believe you will be struck with the lesser experience in the examining corps today. This might mean, that in the years since the Patent Office has returned to Washington, larger appropriations should have been given by Congress, and there should have been more active recruitment of personnel.

Obviously, it does take years of experience to make a topnotch examiner, and there may have been a reduction in the quality and volume of output during the last 2 years because of less experience on the staff.

As to the second couse; it does not require an investigation to show that the amount of technical art to be considered by an examiner before allowing an application has multiplied greatly in the last 20-year period. This is not the fault of Congress, the Patent Office, or the patent bar. It has just been a matter of growth in this country. The number of patents issuing between 1915 and 1935 is less than the number between 1935 and 1955. The number of engineering departments, of lahoratories, and of engineers themselves has multiplied, and invention was stimulated tremendously by two wars between 1935 and 1955. All that which is done in a particular art on one day becomes prior art on the following day. Meanwhile, the collection of foreign patents issuing since 1946 has increased, and this is prior art.

Unless this classification of the prior art is kept up to date in every way the examiner does not have the "tools" available to him to make a complete search so that the patentee can later go before a court with the majority of the art, if not all of the prior art having heen considered by an expert in the Patent Office prior to granting of the patent.

If your committee would investigate the appropriations and expenditures for the Patent Office from 1930 to date to show the amount spent on the day-to-day operation, and the amount expended on classification in the face of this mounting mass of technical material, yon might find a rapidly descending curve for classification. In some arts in the Patent Office, it has been possible for the examiner to do a reasonably good job but in others he bas fallen far hehind. Coupled with less experienced personnel, we have nndoubtedly had patents issuing occasionally without the quality of examination which would influence a court to depend upon the validity of the grant as courts did once upon a time. However, are the courts justified in raising the standard of invention measurably without any move in that direction by Congress?

I had an interesting observation recently from a man who has attained a substantial reputation as a physicist, as a college professor, and then a research

patentability of claims over the references cited. One and not more than two actions would thus be necessary. I had intended to embark on a program of that nature, but in view of the tremendous backlog and the amount of arrearage in time, such a procedure would increase the arrearages for several months or perhaps even a year. This condition, however, would have been only temporary as there would be fewer subsequent responses. However, instead of trying to reduce the backlog immediately, I felt that we could not afford, at that time, to increase the backlog and the arrearage in time any more than it was. Instead, I tried to reduce the backlog and cut down the dates as quickly as possible. Such a complete first action would be applicable in about only 80 percent of the cases, as the remaining 20 percent of the cases would include cases needed to be divided, and other reasons. A program of that nature could be achieved with more space, and more examiners. Should such a program be instituted, a greater appropriation would be required, at least temporarily for about 8 months to a year, to pay for the increased number of examiners necessary. After that time, the extra examiners could be put on classification.

In my opinion, the long intervals of time and the heavy backlog occurred by reason of the Patent Office having first been shifted from Washington to Richmond, then moved temporarily to Gravelly Point, and then finally returned to the Department of Commerce building where there was inadequate space which was spread throughout various locations in the Commerce Building, instead of being housed in the locations originally designated for the Patent Office.

The Patent Office personnel should be expanded considerably, not only to overcome the backlog, but to provide for the expanding economy and for the increasing population.

The Patent Office examining corps should receive greater remuneration to retain an experienced and competent permanent staff, and to prevent outside industry from hiring the experienced and trained examiners.

During my tenure as Commissioner of Patents, I found that the number of times the Patent Office was reversed by the Court of Customs and Patent Appeals, section 141, and the number of times the Patent Office was reversed by the district courts under section 145 (old R. S. 4915), amounted to approximately the same percentage and, if I remember correctly, the Patent Office had been sustained by either of those courts about 83 percent of the time. Perhaps the dual arrangement should be continued.

In my opinion, the recodification of the patent laws of 1952 and additions thereto, which went into effect January 1, 1953, is having a salutary effect, in that it indicates that the Congress, by adopting the new laws, is in favor of strengthening patents. Perhaps less patents are being held invalid because of that indication.

An objective viewpoint toward patentability, in my opinion, would greatly strengthen the position of patents in the courts. A beneficial effect could be had if there were a more liberal attitude in holding patents valid, and a strict interpretation with respect to infringement. Considerable latitude and liberality should be given with respect to equivalent devices under the doctrine of equivalency, and the question of piracy, unfair copying, and other unfair practices, should be resolved in favor of the patent.

I believe the individual inventor is receiving just as much favorable attention before the Patent Office as do the large corporations. In fact, in my administration as Commissioner of Patents, I endeavored to ascertain what percentage of dominating patents were controlled by the large corporations with respect to the number of patents owned by individual inventors. I do not have the tabulation before me and doubt if it is still available, but from my recollection, more than 50 percent of the individual inventors, or so-called garret and cellar inventors, were responsible for more than half of the dominating patents in industry. In other words, the individual inventor has and patents the broad idea, while the corporations expand and improve the ideas. The individual inventor and the research divisions of the large corporations, therefore, both have their place in industry.

In my opinion, small business will hesitate in entering the manufacturing field, unless there is adequate patent protection, so that the investment in organizing a new business may be preserved.

The courts, in my opinion, appear to be adequately equipped to try patent cases even though the technical complexity of the subject matter has increased materially. The technical phase of the situation having been already developed and decided by the Patent Office, the courts will look objectively into the cases. Should there be technicalities involved, the courts, as always, have the privilege

absorb workers from those fields displaced by the increasing automation of industry.

Answering the question of the return on this expenditure for the public investment, possibly 1 out of 50 inventions can be characterized as fundamental and in the category above cited. Taking an average of 2,000 inventions a year as falling into this group, let us assume an average expenditure of $50,000 per invention to cover both steps 1 and 2. Now of course, some of the inventions might receive grants of as little as $5,000 or $10,000, while other inventions might require as much as $1 million, depending on the nature and complexity of the invention.

Now let us assume that out of all the 50,000 to 100,000 inventions per year patented 2,000 are selected for grants, and out of these 2,000 but 1 succeeds in starting an entirely new industry of major proportions, then the economic return to the country from that 1 invention alone, for example let us say it were the third element of the vacuum tube, or the transistor, or the telephone, etc., or the combustion engine leading to the automobile, then that contribution alone would suffice to justify the entire program.

But much more than this will have been achieved: a steady impetus will be given to the entire inventive art. Creative talent will be shored up and supported and urged on to create ever more and better inventions, and the entire economy will benefit by a continual improvement of its techuology.

Other methods might be employed to induce risk capital into inventions. Here are a few further suggestions:

The SEC might be empowered to aid the issuance of low-cost speculative stock to the public to enable them to speculate upon the advance of science and invention with the full knowledge that their investment is a definitely long range and risky speculation. There are many people in this country who would be willing to risk small to medium to large sums of money in just such ventures upon the long-term chance that success will smile upon them.

A further suggestion comes in the use of tax incentives to those who would place their risk capital at the disposal of inventors.

The above grants to inventors would be made by the Government only after other means of raising private capital were exhausted. Furthermore in the case of step 1 and step 2 risk capital investments the Government after each stage would survey the possibility of obtaining risk capital by alternate means, preferably from private sources, with suitable protection of the inventor's interests.

The inventor after each stage would attempt, with the aid of the Government, to interest private risk capital to further the venure. Every effort would be made after each stage to survey the situation to determine whether private risk capital is available. If risk capital were not available from private sources the Government would then proceed to fill the gap and to carry the project further to the next stage.

The Government would step out of the picture as soon as the project were capable of becoming self-supporting, or if the project were proven to be not feasible.

One further suggestion that will require study and legislation.

There exist in the universities and in the corporate laboratories many creative individuals who could be stimulated to produce meritorious inventions of great importance to the economy. This they are doing anyway to a limited extent very much hampered by two things, (1) lack of complete freedom to give vent to their imaginations by being excessively channeled within organizations that have particular demands for certain areas of investigation, and (2) particularly the lack of reward for accomplishment

Much study must be given to the improvement of incentive plans for inventors so that compensation may be paid them in a manner which really reflects the extent of their contribution. No mere token payment will prove satisfactory. The rewards must really be substantial, and preferably be on a royalty basis. An individual within a group that creates something beyond the ordinary call of duty should be treated just as well as an outside inventor, taking into consideration the contribution of the corporation, and with the same rights as though he were an independent inventor coming to a corporation with a patented invention from the outside. This, present-day bonus systems or token payments very often fail to accomplish.

which though it may be of fundamental importance is completely unknown and untried, and may not even have a present market. That is, the market must be established for it after the idea has proven to be feasible. Under these circumstances the obtaining of risk capital may be very difficult, if not impossible. But then let us assume that the development work has proceeded to a successful conclusion and that risk capital has been obtained on a satisfactory basis. Thereafter still another hurdle remains. A new development has been made, a new invention which perhaps may be the basis of a new industry, or an improvement which will revolutionize an old industry. At this point there are no economic data to prove that the process or apparatus invented, or product invented will prove to be a profit-making business venture. At this second stage additional risk capital must be obtained to promote and further the idea and reduce it to a commercial result.

In my estimation both of these stages represent an almost equal difficulty.

In the circumstance the inventor must be fortunate indeed as he must be prepared to deal as a businessman with these problems. He must surround himself with able attorneys, financiers, and promoters, a task for which he is often not well equipped. As a result the tables are very often turned, and it is the promoter, the financier, or others distantly related to the new enterprise who very often reap the reward that is rightfully due to the inventor.

Under these circumstances the patent issued to the inventor may fail to produce the reward that was intended by its granting, and so acts not as an incentive to the stimulation of further developments by this inventor, but may deter him in trying to produce further inventions and developments which will burden him ever further with costs, problems, and disappointments.

In this dilemma the average independent inventor sometimes seeks protection of a corporate group, but usually when he does this he greatly subordinates his rewards, and may find himself channeled along a particular path or route, which may prevent him from the free exercise of his creative ability.

I believe that the prolific creative inventor functions best when he is left to his own devices and that associations with groups or universities or corporations should only be made under his direct volition, of his free choice, and not as a product of economic necessity.

Recognizing this dilemma certain independent inventors, of which I am one, sought to maintain their independence by the formation of their own companies where they would be free to create without external control, and where they may be free to use whatever funds they can acquire to the production of further inventions.

In my own experience an independent professional inventor who functions through the creation of his own business, which in turn will feed his further inventions, can only do so if he is willing to create a diversified group of inventions.

He may visualize a group of fundamental inventions, and merely carry them along in the theoretical stage, but, in addition to this he must also, if he is able, create a group of derived inventions, those which have ready marketability. Preferably with a small group of close and trusted associates, if such he is able to obtain, he must then set about producing and marketing one of his derived inventions which, if circumstances permit, may become successful. If so, he is then free to continue to develop those more complicated and fundamental inventions which may be closest to his desires.

This then is the pattern which many independent inventors have followed as a road to success in their careers. Admittedly it is a difficult road and one not likely to be met with success except under very favored circumstances.

The great majority of independent inventors, then, not meeting with success, find themselves forced to take cover under some corporate wing, under some form of activity which may not exactly fit their free talents. It is also found that amongst those independent inventors which may have made a success of their own businesses, that the demands of the business may tend to divert the inventor from his real talent. Thus the independent inventor may become an indifferent businessman of moderate success which may not permit him to realize the full bounds of his intellectual capabilities as an inventor.

I do not believe that the corporate or team inventor approach is the one most conducive to obtaining the best results from the creative mind of the inventor. A basic reason for this is that the rewards which flow back to the inventor as a result of the use of his creative ability are often far less than that accorded to an executive in another department who possesses only a moderate degree of ability.

2. Is commercially successful and is not clearly disclosed in any single prior art disclosure.

3. Achieves a result not previously achieved even if using known structure if the result is included as a part of the claim.

4. Achieves a known result with a structure not clearly shown in a single prior art disclosure or a combination of prior art disclosures where the combination is suggested clearly by the art to be combined.

Many would consider the foregoing very daring indeed. Some will undoubtedly scream ruin. They will cry with some of the conrts that a band of brigands will seize upon every improvement and wring tribute from legitimate business. On the other hand, no one need pay unless he chooses. If he chooses he must feel that it is worth the price. Obviously nothing actually being done currently would be patentable under the above definition. It is difficult for me to see where the harm would lie; I deny harm would result in fact.

Furthermore to so define invention would offer many advantages. A good search could determine almost conclusively whether a structure was patentable or not. An examiner could determine with greatly increased accuracy what claims should or should not be allowed on a first office action on an application. Procednre in the Patent Office would be expedited enormously. Prospective purchasers of patents in the pending stages would be able to determine with a fair degree of accuracy whether a patent is likely to issue, and in fact how broad the claims are likely to be. All would have a fair to middling idea of whether an issued patent was valid or not for all would he going by the same standard. As a result, the independent inventor could once more know whether he had created a patentable device and would then be left with only the uncertainty of its salability to trouble him.

STATEMENT OF ALVIN M. MARKS, INVENTOR, WHITESTONE, N. Y.

This statement concerns the experience of an independent inventor regarding the workings of the patent system of the United States, and more particularly as that system affects the general economy of the country and its action to provide incentive and rewards to the inventor.

As an independent inventor who has had many dealings with the Patent Office through his patent attorneys in the prosecution of approximately 50 patents relating to the fields of optics and electronics, I can state that the Patent Office as a whole has worked very well. Of course, we are all aware of the various things that can be done to improve its functioning, to pay better salaries to its employees, to attract better grade of employees, to hold them longer in their jobs, and to reduce the backlog of inventions being processed. From the inventor's standpoint, much can be accomplished by increasing the presumption of validity of a patent, by employing a more thorough and complete and careful examination and action by the Patent Office staff on the merits of the invention being considered. This can be done primarily by a better and more complete search of the prior art, particularly foreign references and periodicals. These often turn up in searches after a patent has been issued and can be cited in subsequent infringement suits against the validity of the patent. I know that this will greatly increase the workload of the Patent Office, and so I am suggesting that extensive prior art bibliographies be prepared in each category of the Patent Office, possibly with the assistance of the Library of Congress, and also that electronic searching means be provided so that such prior art bibliographies could be quickly culled for appropriate content. Such data is no doubt scattered throughout many Government agencies, and in my opinion much could be gained by a centralization of all this data and the data could then be made readily available to both Government and private requests, as well as to the Patent Office for the purpose of establishing all that is known of a given subject from the prior art very quickly.

In addition to above I also advocate the setting up of a system of priorities in the examination of patent applications. It often happens that an inventor is working in a particular field which is a long way from being ready for commercialization. In such a case he may wish to delay the issuance of his patent application and thus extend the life of the actual commercial utility of the patent. It is obvious that any patent issuing before it is ready to be commercialized is a loss to the inventor inasmuch as the 17-year lifetime will run without the inventor being able to enjoy a reward from his work. On the other hand there are many

them the kind of protection they are seeking in case they wish to indulge in the well-known technique of legal confiscation, unless they can buy it for a song.

The gullible recipient signs the form and sends them a drawing or working model and that's the last he hears about the matter for the time being; but after a few months he may hear that the industry is using an invention that sounds very much like his, whereupon he gets very agitated and active, and his attorney who thought the industry too big and honorable to take advantage of a poor inventor, without paying some reasonable compensation, writes them the usual letter calling their attention to the fact that they are using his client's invention, as expressed in his drawing, or working model, which had been submitted them.

The chances are that they will completely ignore his implied threat to start legal proceedings, because they feel just about 100 percent sure the client can't afford to go through with it, or they will simply point out that the inventor had signed a preliminary agreement that they were at liberty to avail themselves of anything they could find in the prior art, etc.

Needless to say that with the number of patents approaching the 3 million mark, they have dug up a claim or claims that read on the inventor's structure, in fact, because of their familiarity with the art covering items in their particular line, they knew all the time that possible covering claims existed that did not work in practical application, yet served to block progress.

If the inventor happens to have enough money and courage to tackle a suit, he finds out in the long run, that the number of patent cases and decisions are probably 80 or 90 percent in favor of defendant.

There is a striking similarity in the unrelenting attitude they nearly all adopt in forcing the inventor to accept their terms and conditions. They seem to feel very confident that not one among them will violate an unwritten procedure.

My possible solution has been arrived at after mature consideration of the subject from many angles. It is fair to the industrialist as well as the inventor, yet I believe industry will oppose it with all the forces at their command, because as you can see from the foregoing, they don't have to pay to bring the matter out into the open. As far as buying the invention for their own exclusive use, they realize that that was possible at one time, when the art was not so crowded, but that now the hope for patent protection for them, is just as hopeless as it is for the inventor, therefore why not push up production and beat their competitors to the market.

They realize that their advantage will be short lived, that they will all soon be featuring it, but they console themselves with the thought that it will be good for the industry at large, that there will be increased sales for all.

You of course realize that inventors have made a tremendous contribution to those many-splendored things that have made the advantages, comforts and pleasures of this great country the most fascinating, happy and desirable nation in the world, so why let a condition continue that forces the inventor to throw up the sponge in desperation and seek a livelihood at something at which he is utterly unsuited.

If such a condition was provided, I would feel encouraged to resume my research activities with a new zest and I feel that many other inventors would share my feelings.

Naturally there will have to be discussions, pro and con, it's a big subject, but I think it can be worked out in a way that will save the services of worthwhile inventors for the good of the country.

Yours very truly,

CHARLES C. JAMES.

STATEMENT OF L. A. MACEACHRON, PATENT ATTORNEY, DES MOINES, IOWA

Currently it is very difficult if not impossible to tell in advance of filing a formal patent application whether a device will be patentable. Often substantial sums must be spent before the issues are clear in the battle with Patent Office examiners. Even then a court decision can destroy years of work and worry poured into a brain child. Obviously this is very discouraging to the individual inventor with little or no funds at his disposal. In fact, only a fairly wealthy individual can really afford the gamble of attempting to patent something with the uncertainties of present law. I believe it would be well to relieve this uncertainty if possible. Particularly as a Democrat I believe the little individual inventor is entitled to a better deal. To remove this uncertainty, we must discover the cause of it. It all resides in a single word in my opinion—"invention."

"The Congress shall have power to promote the progress * * * of useful arts,[5] by securiug to inventors * * * the exclusive right to their discoveries."

This interpretation of the constitutional clause has been fully documented,[6] and was endorsed by the congressional committee[7] which reported to Congress the bill which became the Patent Act of 1952. It is not a new idea, as the patent and copyright statutes expressly recognized it up until 1870. In codifying the patent and copyright laws at that time, the constitutional descriptions were omitted.

It has been suggested that the mere presence of the word "inventor" in the clause implies that there must be an "invention," and that this of itself is a "standard." However, the historical facts do not support this view.

In 1789, the word "inventor" meant nothing more than "one who produces something new."[8]

At this time, the idea of a standard of invention was just emerging in England. The British statute contained no such standard, since it permitted a patent on a "new manufacture." The first judicial utterance that could be interpreted as a standard was the statemeut made in 1774 that "any material advance, call it improvement, or call it a discovery" merited a patent.[9]

It seems clear that the framers of our Constitution had no "standard of invention" in mind, but, if they did have, it could have been none other than the low standard just quoted.

In carrying out this constitutional power, Congress has enacted laws setting up separate systems for patents and copyrights. Never, until the A & P case, has anyone claimed that the Constitution contains any "standard" by which either patents or copyrights were to be judged. And, of course, if there is any "standard" expressed, it must apply to both copyrights and patents, since any language that implies a standard is common to both branches of the clause.

Thus, if one takes the view that only such patents are to be granted as promote the progress of the useful arts, then one must agree that only such copyrights may be granted as promote the progress of knowledge. The second part of this proposition would be considered wrong by anyone familiar with copyright law, and if the second part is wrong, the first part is equally wrong.

A study of the history and background of this clause of the constitution should convince anyone that in using the phrase "promote the progress," the Convention was merely expressing the conviction that the granting of patents and copyrights does "promote progress." This conviction was based on 200 years of experience with patents in England and the American colonies, and on over 100 years of experience with copyrights.

If there is any "standard of invention" written into the Constitution, no one had found it for over 160 years. Congress passed laws which provided for the grant and enforcement of patents, but these laws left the matter of a standard of invention largely to the courts, as had been done in England.

Over the years, the courts developed a reasonable standard of invention, bearing in mind the purpose implied in the Constitution, namely that by the granting and upholding of patents, the inventor and his backer would be encouraged, and thus progress in the useful arts would be promoted.

Unfortunately, in the early thirties the idea emerged that patents are a prime cause of certain abuses in big business, and that a quick and easy way to attack these abuses is to attack patents. This philosophy has even reached into the Supreme Court, and no doubt was largely responsible for the development of the attitude that has resulted in striking down substantially every patent that has since come before that court.

This philosophy came to full bloom in the decisions which held that an improvement could not be patentable unless it resulted from "a flash of creative genius,"[10] and pushed back the frontiers of science.[11]

These decisions amounted to judicial legislation abolishing the patent system, and they were so interpreted by the lower courts.[12] Congress did not approve of this judicial legislation, and passed in 1952 a new Patent Act which con-

[5] In the 18th century the phrase "useful arts" meant approximately what we call "technology."

[6] Patents and Science—a Clarification of the Patent Clause of the United States Constitution. The George Washington Law Review, vol. 18, No. 1, p. 50 (December 1949).

[7] Report of House Committee on the Judiciary, to accompany H. R. 7794, section on Early Patent Laws.

[8] This fact is established in the artcile referred to in footnote No. 12 by references to Samuel Johnson's Dictionary.

[9] Lord Monboddo, in *Roebuck* v. *Sterling, Brodix*, vol. 1, p. 12.

[10] *Cuno Engineering Devices* v. *Automatic Devices Corp.* (314 U. S. 84 (1941)).

[11] A. & P. case, supra.

[12] "Are the Courts Carrying Out Constitutional Public Policy on Patents?" Journal of the Patent Office Society, vol. 34, No. 10, October 1952, p. 766.

information and adequately paid skillful examiners should speed up the examining operation and also reduce the costs of prosecuting a patent application. The delays in litigation are well known and seem to be less serious now than heretofore.

The final point I desire to mention is my conviction that the United States Patent Office cannot and need not be self-sustaining. The patent system benefits every citizen by promoting progress. There is no reason why the inventor should bear the actual cost to the Government of processing his application for letters patent since the ultimate object of the patent system is to promote the progress of science and the useful arts for the benefit of all citizens. Any attempt to increase fees o the point of rendering the Patent Office self-supporting will stifle rather than stimulate both invention and progress.

STATEMENT OF GEORGE H. LEE, PATENT ATTORNEY, OAK RIDGE, TENN.

I would like to call your attention to an apparently inadvertent defect in the 1952 Patent Act which, it is believed, should be corrected by the Congress. It relates to the provisions for the protection of intervening rights against reissue patents contained in the second paragraph of section 252.

Prior to the 1952 act, the doctrine of intervening rights rested wholly on case law. The doctrine was a confusing and difficult one, however, and the decisions relating thereto were often in conflict. The 1952 act attempted to clarify the doctrine and to lay down a simple test for its application. These laudatory objectives were, for the most part, successfully achieved.

It is believed that the codification, in general, enacts into law the best and predominant judicial holdings on intervening rights with respect to the principal category of reissues, i. e., "broadened" reissues. Unfortunately, however, a relatively minor category of reissues, namely, "narrowed" reissues, was apparently inadvertently included in the provisions for intervening rights. The enactment of provisions for intervening rights against narrowed reissues constitutes a clear-cut departure from well-established case law which held that the doctrine of intervening rights had no application to narrowed reissues. (See Walker on Patents, Deller's edition, vol. II, p. 1373, and Commeutary on the New Patent Act, P. J. Federico, pp. 45 and 46, contained in the first of the three volumes of the U. S. C. A., title 35, published in 1954.) Further, this departure from established case law appears to be inequitable and undesirable on its face, to have been suggested or advocated by no one, and to be inconsistent with the entire theory of reissue patents and intervening rights.

As an example of the injustice that may result, the following hpyothetical situation is presented. Due to an incomplete search on the part of the Patent Office, an original patent issues with a broad but invalid (anticipated by uncited prior art) claim directed, for example, to a chemical process. The patentee has accepted this broad claim as the proper scope of his invention under a mistake as to the true state of the prior art in reliance on the search made by the Patent Office. This is clearly a case where applicant is entitled to a narrowed reissue patent containing a narrower valid claim patentably distinguishing over the uncited pior art. However, he obviously cannot apply for his reissue until he learns of the uncited prior art and the invalidity of his broad claim. In the meantime, a large company, being aware of the uncited anticipating art, may, with complete impunity, build a plant to carry out the patented process exactly as taught in the patent. Even though both the invalid broad claim of the original and the valid narrow claim of the reissue are admittedly infringed, the company is free to continue practicing the invention in their plant subsequent to the grant of the reissue by virtue of the intervening rights which have accrued to them under the 1952 act. This situation seems clearly to be inequitable and inconsistent with the historical purposes or the reissue laws and the intervening rights doctrine. Under the case law prior to the 1952 act, no intervening rights would accrue to the company against this narrowed reissue.

It is, therefore, respectfully urged that the second paragraph of section 252 be revised so as to exclude narrowed reissues from its provisions. It is believed that such a revision would be non-controversial and could readily be accomplished in any of the following ways:

1. At the beginning of the paragraph, change "No reissued patent shall abridge" to "No broadened reissued patent shall abridge * * *."

2. At the beginning of the paragraph, change "No reissued patent shall abridge" to "No reissued patent enlarging the scope of the claims of the original patent shall abridge * * *."

In practice, every patent is prima facie valid up to the cost of litigating it. For it is valid unless litigated; and it will not be litigated if it is better business for the manufacturer to take a license under the patent, or to manufacture a device of his own independent creation.

It sometimes promotes competition to strike down an issued patent by court action, thereby making the invention freely available to all. It rarely or never promotes competition to strike down a patent application in the Patent Office, since the applicant then has no incentive to reveal his secrets, and no protection with which to attract risk capital.

For these reasons, I do not believe that Congress can unify the standards of inventiveness applied by the Patent Office and by the courts.

(*c*) *Interference proceedings need modernization.*—When litigants prefer to settle their controversies by negotiation rather than by submittal to a tribunal, there is something wrong with the methods of the tribunal. At present, the Patent Office declares an interference under certain circumstances to determine priority of inventorship between rival claimants. Interference proceedings are unduly technical, time consuming, and expensive. Manufacturers in active fields of invention, where interferences are most likely to occur, frequently bypass the interference procedure of the Patent Office by informal negotiation during which they show each other their evidence of priority of invention. The party which believes it will lose then terminates the formal interference by allowing the patent to issue to its adversary. The price for this concession is usually a royalty-free license to the loser under the patent which the winner receives.

These negotiations of course sometimes break down. It would seem desirable to amend the patent statute to permit interferants to stipulate, to arbitrate, and to provide that the Patent Office shall enter judgment on the award of the arbitrator.

In at least 90 percent of the interferences declared, the party first to file its patent application is adjudged to be the first inventor, and obtains the patent. In other words, in 9 out of 10 cases the result would he the same if interferences were abolished, and the patent issued to the first applicant to file.

Earnest consideration should be given to modernizing the interference procedure, or to abolishing it altogether.

For example, the patent statute could be amended to provide that the patent shall issue, without declaration of any interference, to the party first to file. When the Patent Office is aware that there is a rival claimant, it should require the party first to file (senior party) to make its case special, and to rush the patent to issue as soon as possible. All junior parties should then have their applications rejected upon the patent issued to the senior party. In such circumstances, the junior parties would retain the right which they now have under present law to request an interference with the issued patent, provided the request is made within 1 year from the date the patent issues.

6. Surveys are needed

Judge Learned Hand has stated that we know nothing about the economic effects of the patent system and its actual effect in promoting the progress of science and useful arts. Adequate factfinding investigations should be undertaken.

(*a*) We need a quantitative examination of the extent to which patents are actually being used to restrict opportunities, as compared with other devices. We need to know the extent to which opportunities are restricted in this country (1) by control of natural resources, such as the minerals necessary for producing aluminum, (2) by control of distribution systems, such as oil and gas pipelines, (3) by the power of mere bigness and money might, (4) by superior organization and efficiency of competitors of various sizes and in various fields, (5) by labor unions in restricting admission to membership, (6) by such labor practices as insistence upon the use of obsolete handtools and boycotting of laborsaving machinery, or fixing wages at rates so high as to discourage use of the trade involved, and (7) by discrimination based on color, race, creed, name, sex, or past association.

(*b*) It would be of value to poll industry to ascertain what measure of validity businessmen accord to an unlitigated patent; and to what extent the high cost of patent litigation causes businessmen to pay patent royalties on patents which they believe to be invalid. We should also ascertain the cost to business, and the value of, the technique of obtaining patents for defensive purposes.

3. The plant patent statute imposes a standard of "inventiveness" which is workable for utility inventions and design inventions

The plant patent statute (35 U. S. C. 161–164) makes patentable "any distinct and new variety of plant, other than a tuber-propagated plant." Hence Congress has decided that the constitutional standard of "invention" or "inventiveness" or "inventive level" is attained when a distinct, new variety has been created.

With respect to plants, as with medicines, the "invention" can be "conceived" only after it has been reduced to practice in a tangible embodiment. The plant inventor does not know what his experiments will produce until after the plants have been produced. The plant patent statute does not require the plant inventor to exercise skill beyond that of the ordinary plant breeder; and does not expect him to devise any new technique for producing or asexually reproducing his new plant. Indeed, he proceeds by well-known techniques of plant breeding, and the law accords him the status of "inventor" if his work results in a distinct, new variety of plant. The variety is "distinct" if it can be distinguished with certainty from previously known varieties of the same plant.

The same standard of invention might well be adopted for design inventions and utility inventions. If the alleged utility invention (or design invention) is really a distinct, new variety, it ought to be patentable; if it is only a colorable variation of something already known, and does not possess useful (or ornamental) qualities which clearly distinguish it from the prior art, then it ought not to be patentable.

4. Should the design patent statute be repealed?

The design patent statute (35 U. S. C. 171–173) is not well adapted to the design problems of industry. Adequate searches cannot be made in the Patent Office, because the present classification system is not workable. It classifies design patents by the function of the article of manufacture to which the ornamental design is applied. Hence, fountain pens, cigars, and balloons are located in three different classifications. Yet the identical design configuration is commercially used in each. The ornamental appearance of a ballpoint pen is neither new nor patentable if the same shape has previously been used in dirigibles or in cigars. What counts is the ornamental effect, and so far no one has invented a classification system based upon ornamental effect disengaged from the nature of the article being ornamented.

Classification by artistic style is not workable either, since such categories as streamlined, cubistic, abstract, modern, renaissance, rococo, arabesque, oriental, Louis XVI, etc., each embrace an infinitude of varieties of ornamentation, depending upon the taste and personality of the designer, the shape and function of the object to be ornamented, the material from which it is made, the method of manufacture, etc. The same techniques of ornamentation result in radically different visual effects when applied by different inventors. The issued design patents reveal only a small fraction of the ornamental effects which have been utilized or known. The design patent examiners therefore are not able to make an adequate search; and the grant of a design patent hardly warrants any assumption that the design is new or that the patent is valid.

Many designs are ephemeral. In the case of ladies' hats, for instance, the commercial life of the design is apt to be shorter than the average time interval now prevailing between the filing of a design patent application and the issue of the patent thereon. And design patents fare worse than utility patents in litigation; very few design patents are sustained in court.

The Supreme Court appears to have taken the view that anything which can be designed patented is also entitled to copyright protection: *Mazar* v. *Stein* (347 U. S. 201; 100 U. S. P. Q. 325; 74 S. Ct. 460; 98 L. Ed. 630 (1954)). To the proprietor of a new design, copyright has many advantages over design patent—copyright is quicker, easier, and cheaper; the term of protection is longer, and the right is easier to enforce. There is no need to duplicate the modes of protection. The Stein case invites repeal of the design patent statute.

Careful consideration should be given to the question whether the doctrine of the Supreme Court in the Stein case should be codified by amending the copyright law to include a statutory declaration that any new and ornamental design for an article of manufacture is entitled to copyright protection.

However, there is stubborn resistance to recognition of copyrightability in clothing designs. There is practically no resistance to design patent protection for clothing, possibly because design patents in practice fail to give any real protection in this field. As matters now stand, cheap copies of even the most exclusive dress designs go on sale almost as soon as the originals, so that the

new products, and new manufacturing methods, all of which have created prosperity and industrial progress for the United States, far beyond comparison with less industrialized nations.

For an example, less than 20 percent of our people are engaged in the production of food, and they produce much more than we can possibly use, while in India, China, and other nations, we find that 80 percent of the people are engaged in the production of food, and even then they can only manage a starvation diet. As we do not have a monopoly on brains, it would seem that the basic difference lies in the encouragement of inventions here in the United States making the skills and knowledge of the trades available to the public, while in the less industrialized countries the skills and knowledge of the trades are passed on from father to son and often lost forever with the passing of the originators.

Shall patent vultures be allowed to continue to exploit our technically incompetent judges, so that our courts destroy our progress as effectively as might an enemy army?

No nation can survive as a leader among nations without encouraging and protecting inventions.

ADDITIONAL STATEMENT OF ALBERT I. KEGAN, PATENT ATTORNEY, CHICAGO, ILL.

1. Every patent promotes progress

Every United States patent is widely distributed in printed form on the day it is granted. While no one can make, use, or sell the patented invention without the consent of the patentee while the patent is in force, everyone in the world has the right, from the day the patent is granted, to use in every other way all the information contained in the patent, without the consent of the patentee. Thus every patent promotes our understanding of science and the useful arts. The inventor's secrets are revealed in his patent, and other inventors are free to combine this information with all the other available information on the subject, and hence can proceed the very day the patent issues to improve the patented invention, or to make it obsolete by something different and better.

As media for the dissemination of useful information, patents have proved superior to other publications. One reason is that patentees bring their patents to the attention of the industries involved, in their efforts to commercialize them. But probably a more important reason is the classification system which has been perfected by our Patent Office. To be useful, information must be easy to find. The purpose of the Patent Office classification system is to make it relatively easy to locate all patents bearing upon a particular subject. Under present practice, ever patent contains a list of citations to the published references which the patent examiner considered most germane to the subject matter of the invention.

In recent years, the Patent Office classification system has become inadequate to the task at hand, due to the increasing complexity of inventions and the vastly increased number of references relevant to each invention. I believe that it is essential to the successful operation of our patent system that all information bearing upon a particular technological problem shall be available quickly, cheaply, and reliably. I recommend that a thorough investigation be made to discover and appraise new techniques for completely classifying all the valuable information in every patent and every scientific and engineering publication, and for processing this information in such manner as to make it possible to quickly obtain all the known knowledge available upon each specific new item under investigation. Automatic machines will probably have to be invented to sort and select patent information, if searching is to keep abreast of inventing and patenting.

2. Plant patents do not insure that the patented plants will be available

A utility patent or a design patent teaches every person skilled in the art how to make and use the invention shown therein. The teaching in the patent is the sole consideration which the inventor pays for the legal protection accorded him by the patent. The public receives no such consideration from a plant patent. From the information given in a plant patent, it is impossible for anyone, no matter how expert, to independently create the patented plant. While a plant patent names the pregenitors of the patented plant and states the manner in which it was obtained, repetition of the identical procedure upon the same pregenitor plants never produces the patented plant, because of the kaleidoscopic variability of living things. Replicas of the patented plant can be obtained only by asexual reproduction of the original plant. In other words,

In the case of the individual inventor or small business it is often a matter of life or death for a newborn enterprise to have a valid patent to shield it and encourage capital, so that the new product may be developed for marketing in sound competition with large industries.

Years back, when patents were respected, capital was ready to invest in such new enterprises. Now capital for financing important new inventions is rare. Thus, instead of preventing monopolies, we are now actually helping to create even larger industrial monopolies for a few giant corporations, while destroying small enterprises in their infancy. We desperately need new enterprises, with new or improved products, to employ all our ever-increasing manpower and to maintain industrial leadership and progress for our Nation.

What can be done to improve the desperate situation in which we now find ourselves?

First, we should realize that the United States patent system is created, not for the purpose of supporting the legal profession with profitable patent litigation, nor to keep our courts busy, but to create industrial progress and benefit all the people of our Nation. Therefore we must find ways and means to litigate legitimate patent controversies economically so that a patent once again becomes an asset instead of a curse to the inventor.

A far-reaching step would be to remove some of the notorious "legal genii" presently making fools out of our courts. They are a disgrace to the legal profession, our courts, and our Government, who tolerate the actions of such individuals.

We must change our patent laws so that unscrupulous individuals or firms are not encouraged and richly rewarded for their efforts to destroy the inventors' property by litigation.

We must instruct our courts that a Government document such as a patent is not to be rejected or invalidated unless fraud has been committed in obtaining it or other grave errors have been made in issuing the patent. A patent should mean exactly what it says and be regarded as a deed to property owned by the inventor. As such, it is entitled to protection from theft just as much as if it were an automobile, a Government bond, or money. A willful infringer is no better than a thief and should be considered as a criminal. The court should, therefore, immediately issue an injunction against the infringer, stopping him from all further use of the patented product or process, so that he is not in a position to use the patented item to pay for litigating against the patent. If a thief steals an automobile and is caught before he has been able to dispose of it, he is not permitted to go out and sell it in order to take care of his legal expenses, so why should it be permitted in the case of patent infringement?

The issuance of a patent rests upon a finding of fact by the Government's own experts in the Patent Office, after a painstaking search and examination, and frequently after hearing witnesses in an "interference" proceeding, that a product is both new and useful and does not infringe any previously issued patent anywhere in the world or has not been previously described in any publication. That finding of fact ought to be given "great weight" by our courts, in the same manner courts are required to give "great weight" to the findings of fact of any other administrative department or agency of our Government. A patent once issued must be considered valid, at least until such time as it has been declared invalid by a court in the event of fraud or gross error in obtaining it.

Is it right, first to encourage inventions by the incentive of a presumably valid Government document, and then at the same time to encourage the lower instinct in man to profit richly by unfair interpretation of the laws governing the validity of that document? Similar procedure is not tolerated by our courts in private life. Why, then, is it tolerated only when the validity of a United States patent is in question?

In all fairness to the inventors, no one should be rewarded with the right to use a patented invention merely because he challenges the validity of the invention and produces evidence that the invention is not absolutely new. Such a test creates dishonesty in litigation, because such testimony is for sale any day for a price. Even if true, but where the invention is not of public knowledge, that is published or generally known, such a use did not enrich the art and no one should be rewarded for finding such prior art which did not contribute to industrial progress of all of our people.

A person or business using such an invention, which had not been abandoned prior to the application for a patent, should not be entitled to other consideration than a nonassignable license to continue to use only that which he can

STATEMENT OF GORDON HUESCHEN, PATENT ATTORNEY, UPJOHN CO., KALAMAZOO, MICH.

One of the specific matters which you are considering is the improvement of examining procedure to reduce the number of patents held invalid by the courts with a view to imparting more certainty to the rights granted inventors. Along this line, you are undoubtedly aware that the practice of the Patent Office has been to continually diminish the number of claims which an applicant can obtain in a single application. This has been accomplished mainly on the basis of rejection of the application due to undue multiplicity of claims and for various other technical reasons, such as the technical reasons involving the so-called Markush groups. The result of this practice is that fewer and fewer claims of a subgeneric scope are obtainable.

This would be perfectly in order, were it not for the fact that the courts frequently invalidate the broader generic claims and seldom, if ever, interpret the claims of a patent in a manner to save its validity. It would therefore seem that subgeneric (or intermediate breadth) claims should be encouraged, as these might well stand as valid claims where broader, more generic, claims might be thrown out by the courts. It is, of course, somewhat difficult for the Patent Office officials to see ethe merit in allowing more claims of intermediate scope (which could easily be done by eliminating some of the strictly procedural practices) in view of the already existing criticism that the Patent Office allows claims which are invalid, too broad, and also allows too many claims already. However, allowing more claims of intermediate scope might well result in saving a patent, and for this reason I believe such a practice should be fostered.

In addition to the above, I would like to point out that any schedule of fees, which bases the fees on the number of claims in an application, would tend to discourage the presentation of a sufficient number of claims and also claims of intermediate scope and would have a result opposite to that which I have recommended in the preceding paragraph. If the courts would cooperate in trying to save a patent, then only a few claims per patent would be satisfactory. Under the present circumstances, where the courts are quite prone to hold patent claims, especially broad claims, invalid, there seems to be no justification for trying to limit the number of claims in a patent (except on a basis of undue multiplicity in extreme cases), and certainly there seems to be no excuse for putting into effect a fee schedule which has the result of diminishing the number of claims applied for.

It has been, and still is, my sincere belief that a substantial increase in the appropriations for the Patent Office should be made as soon as possible. The slight budgetary relief afforded the Patent Office for the next fiscal period is certainly a step in the right direction but, unfortunately, it is still far from adequate. The matter of additional funds for the Patent Office can really only be handled satisfactorily through additional appropriations and the idea of balancing the Patent Office budget by the process of increasing Patent Office fees is in reality a step backward. While I am not particularly concerned about corporate inventors, it is clear that an increase in Patent Office fees would discourage many individual inventors from filing patent applications, possibly even from entering upon research or investigations which would lead to an invention. It is difficult enough for an individual inventor to obtain financial backing to carry out his research, produce his models, do his testing, and the like. It is ridiculous to suppose, as some do, that the added burden of increased Patent Office fees will not be onerous to the inventor, especially the individual inventor; indeed, it may be the straw that breaks the camel's back. Admitting that an inventor obtains a monopoly for 17 years under any patent granted to him, it seems clear that such limited and constitutionally provided for monopolies are, in fact, in the public interest. Such limited monopolies stimulate invention and encourage the inventors to disclose their developments in the form of a patent application which is subsequently placed into the realm of public knowledge by issue of the patent and which ultimately passes into the public domain upon expiration of the patent. For these reasons, I believe an increase in Patent Office fees should not be made and that the additional moneys which are required for the operation of the Patent Office should be provided by direct appropriation.

Last year, someone pointed out that the appropriations for the care and feeding of animals in our national parks at least equaled the appropriations for the Patent Office. Admitting the necessity of maintaining our animals, does not this seem to you a ridiculous situation? Any bills which propose to increase Patent Office fees are clearly not the answer to the problem in my estimation.

In the meantime, the contractor who thought me foolish for the idea at the start suddenly took it in his mind that he should be entitled to 50 percent of the patent because he tried the machine out. At the same time the lawyer still expects some shares although he did a great deal of harm through mismanagement. Now the money received from sales had to he spent on legal fees for fighting this combination instead of being used for the advancement of manufacture. This was the first blow.

Next, one of the customers who bought six machines wanted to ohtain the New England agency, but I found that his reputation was rather poor and I refused. He then made contact with a large corporation who went ahead and built a competitive machine. There was ample capital and their product was spread all over before I could get a foothold. Of course, I had engaged a patent attorney of my own meanwhile, a very reliable man. While I was granted some very forceful claims in an office action there is still one fundamental claim I have been trying to obtain and which basically differs considerably from cited findings. However, the examiner takes a different viewpoint which appears quite fallacious in view of the object to be derived from the machine. The patent objection on this point can be compared to Columbus' egg or to Tennyson's word—"Now almost everyone can grow flowers because they have the seeds." If this view were applied to other patents it would make most of them invalid for we find very few claims in the Patent Gazette which are not based on some preceding knowledge.

In regard to infringement proceedings my patent attorney stated that nothing can be done uutil the issue of the patent. By this time an important part of the market is either lost or hard and expensive to capture. This was the second blow after working so many hours until I was exhausted.

When I farmed out some work, that shop promised to sell at least 10 machines per week if they could continue making them. Their workmanship was poor and has cost me a great deal of money to make good and retain the customers' good will. Therefore I decided to change and was informed by one of the partners that they would make a machine of their own then. They said that, as long as the first corporation could make such a machine, they could do the same. My second attorney (who died last year) wanted to make connections with another firm whose labor lawyer he was as I found out later. One of the owners of this firm remarked to me that he was very friendly with the other concern and, in fact, started them in business and therefore would also take on his copy of my machine. Agreements had already been drawn up but not signed and on the strength of this statement I refused to do so and they went ahead and made the other machine. My patent attorney informed me of their infringement but also mentioned that I must wait for the final letters patent first. However, I would have a breach of trust case against them also. Nevertheless, such proceedings are extremely expensive and beyond the ability of the small inventor. Inasmuch as the market has proven my machine far superior to the competitors I was advised to use the available capital to promote it iustead of suing. The labor lawyer accepted my fees but worked closely for the benefit of the above firm. This was another flogging. What is the inventor to do in such a case? Unless by luck he will receive some backing anyone with money can come and take what he worked so much for. I hardly would call this patent protection. Where is the poor man's justice if he wants to provide for his age? It surely does not stimulate incentive and while I have other useful things I have no intentions of having others reap the benefit and be left out in the cold. Even if the machine were sold outright to escape further trouble, the Government would require more than the cost because one's own labor is not deductible from taxes and there would be not enough left to start another venture.

In my case I met an acquaintance who owns a large textile mill. After learning the situation he made arrangements to back me to clear the first legal hurdle so that I could at least continue without interference.

At last, through my son's intervention, we have been able to make arrangements with an old and reliable firm who is able and willing to undertake the success of this venture. Notwithstanding, it will be some time before all the legal and related expenses are cleared up, a matter which could have been all avoided if our patent situation were built up to give the inventor the protection he needs. Most of us cannot bear the expenses to obtain justice and since our work requires deep concentration along our line very few have the capacity by nature to study business methods. Most of the work is done in spare time and little left for other work.

received such notification. While such a change in the law will not completely protect the inventor, it will probably render sufficient protection to induce most patent applicants to make their inventions public. For a number of reasons it is, of course, entirely possible that the Patent Office may refuse to grant a patent to the applicant upon his alleged invention. Under such circumstances the manufacturer and marketer of the product disclosed in the application is not answerable to the applicant for any damages whatsoever. It goes without saying, therefore, that whoever produces and markets the subject of a pending patent application assumes the risk of being liable for any damages incurred by the assignee of the patent if and when the patent is actually issued. Because of the risk involved a smaller proportion of parties will contemplate the manufacture of products under such conditions. This will prove to be advantageous to the public because it will enjoy the benefits of inventions at an earlier date through the action of inventors who will be induced by the revised law to disclose their inventions before the corresponding patents are actually issued.

The practice of the courts in rendering decisions upon the validity of patents has been such as to generally favor the infringer. Their definition of what constitutes an invention has resulted in the invalidation of a large number of patents to the advantage of the infringer. At times the courts have ruled that in order for a product or process to be termed an invention it must be the result of a flash of genius. It is apparent that difficulty is immediately encountered in further defining what constitutes a flash of genius. Judging from such actions on the part of the courts it appears that they may have lost sight of the purpose for which the issuance of patents was originally intended. It has worked to discourage the patent holder from bringing to trial a suit against an infringer because of the general attitude that the small probability of recovering damages from the infringer through court procedure does not justify the expenditure of the usual legal costs involved in the prosecution of such a case. Aside from the fact that this encourages the number of infringers, it has also the effect of inducing inventors to retain their processes secret. This is detrimental to the technological advancement of the Nation and causes the issuance of patents to lose its significance. Today, when new methods and products are essential not only for our living standards but also for maintaining adequate defense weapons, it is of the utmost importance to encourage the inventor. With this view in mind, it is suggested that the practice of the courts be changed to one which recognizes that a patent is a contract between the inventor and the United States wherein the inventor agrees to make public the nature of his invention in return for the sole right to manufacture and market it for the stipulated period. It should be the practice of the courts to uphold such contracts rather than to destroy them for this will be in favor of the public welfare and restore to patents the intended meaning.

STATEMENT OF ROBERT A. GREENE, INVENTOR, DAYTONA BEACH, FLA.

I feel that I am a very small inventor; however, I have had a number of ideas during the past 20 years which, because of the trouble, expense, and uncertainty connected with getting a valid patent, have caused me not to spend the time to develop these ideas. Several of the ideas have since been patented by others, one of which was the awning-type window now so popular with builders and homeowners.

Senator O'Mahoney, there is another angle to this patent business that I wish you would give some thought to, and that is this; when the Government issues a patent, it is presumed to be a valid patent, so why can't the Government arrange to defend this patent instead of putting the whole burden on the small inventor who can't afford to defend. Chances are that if he gets a patent on something good, the big concerns will take it away from him.

If the Government would step in and defend its issuance of a patent on behalf of the patentee, then I believe you would have a flood of new applications for patents on new ideas. This, of course, would boost the manufacturing economy of this country quite a lot, provided the Government guaranteed the patent.

If this idea has merit, I hope you can find ways to use it.