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OVERSIGHT OF THE PATENT AND TRADEMARK OFFICE

HEARING

BEFORE THE

SUBCOMMITTEE ON PATENTS, COPYRIGHTS AND TRADEMARKS

OF THE

COMMITTEE ON THE JUDICIARY UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

FIRST SESSION

ON

THE OPERATIONS OF THE PATENT AND TRADEMARK OFFICE, BOTH IN ITS BUDGETARY AND ADMINISTRATIVE ARRANGEMENTS AND ITS RULEMAKING ROLE WITHIN THE GOVERNMENT

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THURSDAY, APRIL 7, 1983

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
SUBCOMMITTEE ON PATENTS, COPYRIGHTS AND TRADEMARKS,
Washington, D.C.

The subcommittee met, pursuant to notice, in room 226, Dirksen Senate Office Building, commencing at 2:37 p.m., Senator Charles McC. Mathias, Jr. (chairman of the subcommittee) presiding.

Also present: Senators DeConcini and Leahy.

OPENING STATEMENT OF SENATOR CHARLES McC. MATHIAS, JR.

Senator MATHIAS. The subcommittee will come to order.

We are convening today to hear the testimony of the distinguished Commissioner of Patents and Trademarks. At the very outset, Senator DeConcini, let me say I don't want to prejudge the outcome of this oversight hearing, but I think it would not be inappropriate to congratulate the Commissioner on the job that he has done in the last 2 years.

I have had occasion to visit the Patent Office, to see some of the things that he has been doing, and earlier this year his achievements and dedication were recognized in an award for distinguished public service in a ceremony at the Commerce Department. My observation would lead me to believe that this award was highly deserved.

What we are trying to do, what we hope to get some advice on today, is to keep the patent system strong in the face of some extraordinary conditions that could never have been anticipated, and we probably can't even analyze comprehensively today conditions that affect technological levels of change and conditions that are reflected in international developments which bring pressure on the patent systems in this country and in other industrial countries.

Mark Twain, who had something to say about almost everything, once said that a country without a patent office and good patent laws is just a crab, and can't travel any way but sideways and backways.

Now, we who live on the shores of the Chesapeake Bay never knock crabs; however, sideways and backways may be all right for a crab to travel, but not very good for a country.

Over the years, we have enacted a great many patent laws to strengthen the system, but I think we have passed more legislation

in the past 4 years than in the previous 20. My own record has been somewhat mixed on this legislation; I have supported some of it, and had some doubts about other parts of it.

But I think generally we have made progress.

Public Law 96–517 combined two major patent bills that had been pending in this committee for several years, the patent reexamination bill, and the university and small business patent procedures bill.

In the last Congress, the patent and trademark reauthorization bill, Public Law 97–247, included increased user maintenance fees that will allow the Office to be able to overcome the backlog of patent and trademark applications, and to cut the time required to obtain a patent.

Another provision of the law allows for voluntary arbitration of patent disputes. Public Law 97–164 established the National Court of Appeals for Patent Cases. This committee has also closely monitored recent developments in the international patent and trademark arena, particularly the negotiations toward revising the Paris convention on industrial property, which, as the committee noted in its session yesterday, will mark the 100th anniversary this year.

The Commissioner takes a rather positive view, and I welcome that. Today we will look at the operations of the Patent and Trademark Office, both in its budgetary and administrative arrangements and its rulemaking role within the government. I also hope that there will be time for some discussion of the legislative agenda of the Judiciary Committee in the patent and trademark areas.

There may be additional information for the record; some additional testimony; answers to written questions that members may wish to submit to the Commissioner; so we will hold this record open 3 weeks to make sure that there is adequate time to get all the material in.

Mr. DeConcini, would you like to make any remarks?

OPENING STATEMENT OF SENATOR DENNIS DeCONCINI

Senator DECONCINI. Mr. Chairman, thank you. I want to also thank you for the opportunity to have oversight hearings on a very important subject matter. Although we have enacted a lot of laws, I think we have been a bit remiss in the Judiciary Committee over the period of time I have been there, doing enough oversight and having enough opportunity to listen to testimony and to see whether or not we in the Congress have kept abreast of the changes in this very important area.

I also compliment the Commissioner for a job well done. We are very pleased with what you are trying to accomplish at the PTO. This committee, I think you will find, is interested in making helpful modifications to the patent and trademark law, but we are also interested in finding out more and understanding more of what you are trying to implement by way of updating the efficiency of the PTO.

I thank you, Mr. Chairman, for the opportunity to have the hearings here.

Senator MATHIAS. Thank you, Senator DeConcini.

Commissioner.

STATEMENT OF GERALD J. MOSSINGHOFF, ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS

Mr. MOSSINGHOFF. Mr. Chairman and Senator DeConcini, I very much welcome this opportunity to appear before your subcommittee in these oversight hearings.

This subcommittee has already set up an ambitious and impressive legislative agenda for itself. The importance of the issues under consideration to the well-being of the Nation simply can't be overstated. I think we have all focused, through our legal careers, on real property and personal property, but it seems to me that as we move into the postindustrial era, intellectual property is going to outweigh the importance of both real and personal property to the well-being of the Nation.

In my prepared statement, I cover three areas: A brief description of the status of our programs to upgrade the Patent and Trademark Office; a summary of our involvement in very important international activities; and an outline of our legislative program for this year.

In the past, and even recently, the Patent and Trademark Office didn't serve industry and inventors the way it should. Huge backlogs clogged our operations and delayed the granting of patents and registering trademarks.

The backlog hit record highs and grew continuously, inhibiting the introduction of new technology and new products into commerce. The administration has made a commitment to turn things around at the Office through an aggressive three-point program.

This program is high on Secretary Baldrige's agenda and has been announced in the budget documents. The first point is to end the 20,000-case-per-year growth in the huge backlog of pending applications in fiscal year 1984, and then to turn things around to reduce the time it now takes to get a patent—which is over 27 months—to 18 months by fiscal year 1987. We call this plan 18/87.

The second point is to register trademarks in about a year—13 months—with an opinion on registerability given by an examiner in 3 months after filing.

Finally, and perhaps the biggest change, is to take aggressive steps toward complete automation of the U.S. Patent and Trademark Office by 1990.

The key to achieving these goals without increasing Federal expenditures was to increase user fees to more realistic levels. With the support of this committee, and the Senate, we were able to do this with the enactment last August of Public Law 97-247. This legislation not only raised fees, but it authorized the Office to use the fees it receives to improve service to industry and inventors.

Public Law 97-247 also sets the current levels of maintenance fees, payable three times during the 17-year life of a patent. Those fees, together with filing and issue fees, will provide an increasing source of revenue outside the Federal Treasury over the next decade.

Further, the fees now in effect can be adjusted every third year to take into account increases that may occur in inflation. Thus, the Patent and Trademark Office is now on a sound financial basis to achieve the administration's three-point plan.

The 1984 program level request now pending before the appropriations committees is $171 million. This is an increase of $18 million over the program level for 1983, but with offsetting fee receipts, the amount of increase is about $10 million. The program that we laid out last year in support of the fees was a 3-year program. Since our fees are fixed for 3 years, we had a 3-year program covering 1983, 1984, and 1985. The 1984 budget we are now justifying is the second year of that 3-year integrated program.

Today I am pleased to report to you that we are on schedule in our efforts on each part of the three-point plan. Our annual report for fiscal year 1982, which is at the printer now, provides a detailed analysis of our operations, and Mr. Chairman, you may wish to include that in the record of these oversight hearings.

Senator MATHIAS. If you will provide us with a copy, without objection it will we included as part of the record.

[The report was subsequently submitted for the record and follows Mr. Mossinghoff's prepared statement.]

Mr. MOSSINGHOFF. With respect to plan 18/87, we are committed to end the growth of the backlog of pending patent applications in 1984, and to reduce the time it takes to issue a patent to 18 months.

The backlog of pending applications now stands at about a quarter of a million—about 250,000 cases are pending in the Office. To halt the growth in the backlog we have hired over 300 additional patent examiners during the past 2 years. In the next 3 years, we will hire an additional 600 examiners, to bring our professional examining staff to over 1,500 examiners.

We are extremely pleased with our hiring program. We have a very ambitious recruiting program to get first-class engineers from the engineering schools around the country. We succeeded last year in recruiting 235 engineers. More than half of them are honors graduates of engineering schools. Their average grade point average is about 2.9 on a scale of 4.

To assimilate these new examiners, we have acquired over 32,000 square feet of new space in Crystal City; we have established 30 new organization units called art units; and we have greatly expanded our patent examiner academy.

To support the examiners, we have installed word processing systems in each of the examining groups, eliminating altogether the 80,000 handwritten examiner opinions which had been sent out yearly. We have eliminated those handwritten opinions which had become an object of well-deserved ridicule throughout the world of the U.S. Patent Office.

During 1983, we plan to expand our Board of Appeals and to strengthen all areas of clerical and logistical support, including a greater reclassification effort to upgrade the examiners' files.

Although we are on target to meet the goal, much remains to be done. Before we can reduce the time it takes to get a patent, we must first turn the corner and begin to dispose of more applications than we receive. We will do that in the budget year that is now pending before Congress.

Our second commitment is to reduce the backlog in trademarks—a record 125,000 cases—so that by 1985 we can give first

opinions in 3 months, and finally dispose of cases in a little over a year.

We now have a record high 105 lawyers examining our trademark applications. They are organized into eight newly established law offices. We have three contiguous floors in Crystal City that houses the trademark operation. Just this week we brought into operational status a new trademark application monitoring system. Now when we get a request for the status of an application, we have a computerized system that can tell us where that application is among the various stops in the process.

Automating the Patent and Trademark Office is probably our greatest challenge. We now have, as I have indicated, more than 370,000 pending patent and trademark cases. More than 20,000 papers are received each day which must be incorporated into those 370,000 cases as they flow through the Office.

Our patent examiners have to look through 25 million documents which are classified in 112,000 subclasses. Right now it is an all-paper, hand-file-and-retrieve system. One of the biggest problems we have had is that, at any one time, about 7 percent of our 25 million documents are either missing or misfiled. The paper system was set up in 1836 and has remained virtually unchanged since then. During that time it simply has deteriorated to the point where 7 percent of the documents are missing.

The only answer to that, obviously, is rather than having a paper system, having a system where you put the documentation in a machine so that one user takes a copy of the document out but the document itself stays there for the next user to view.

Increasingly, because of the lack of integrity of our files, decisions to grant patents and register trademarks are based on incomplete information. That is the worst thing we can do to an applicant either for a trademark or a patent.

In response to a directive, and one of the important provisions of the public law you mentioned, Mr. Chairman, Public Law 96–517, was the congressional mandate to do a 2-year, full automation study of the Office and report back to the Congress in December 1982.

We completed the study on time and submitted it to you. The document itself, or the executive summary, has been given to each of the members of the subcommittee.

I think it may also be appropriate to include that executive summary in the record of these hearings, because it does provide, in a very brief way, our total plan through 1990, at least in summary form.

The automation plan describes a three-phase program. During the first phase, which extends through calendar year 1984, all the trademark functions and one of our 15 patent groups, Group 220, will be automated.

In the second phase, which runs through 1987, all patent groups will be automated and essentially paperless operation will be achieved.

The third and final stage will provide worldwide electronic access and expanded dissemination capabilities.

The Patent and Trademark Office has entered into a $2 million agreement with the MITRE Corp. for the first year of a multiyear

contract for systems engineering and integration and other work to help us put the plan into operation.

The long-term stability of the patent system hinges, in my opinion, on the successful completion of the automation plan. The administration is committed to a first-class Patent and Trademark Office, and in implementing the automation master plan, we will have taken a significant step in that direction.

An important part of our mission in the Patent and Trademark Office is to promote greater dissemination and use of patent data and information. A valid criticism of the patent system is that our documentation is used primarily by patent professionals to decide whether something should be patented, or whether something is valid once it is patented.

One of our goals is to get this documentation out to industry, where decisions on whether to enter into research and development can be made after a review of what someone else might have done in the area. Hopefully this will cut back on people reinventing the wheel.

One way we provide that documentation is through our patent depository program. The Patent Depository Library is an established library, not funded by the Federal Government, but by universities or cities, for example, that has agreed to acquire a collection of U.S. patents.

We now have 38 such libraries across the United States providing remote access to the same U.S. patent information available in Arlington, Va., in the Crystal City complex.

The impact of these libraries is enormous. Through these technology centers, millions of U.S. residents now have access to needed patent information that was previously difficult to obtain. We estimate that about 47 percent of our population is now within commuting distance of a patent collection in a Patent Depository Library. I have committed to Secretary Baldrige to try to increase the number of Patent Depository Libraries by three each year, so that in several years we will double the number available throughout the country.

I think one of the keys to doing that is to tie these Patent Depository Libraries together with our automated systems and greatly enhance the value of patent information to people outside the Washington area.

As it now stands, about 15,000 members of the public obtain patent information each month through these 38 Patent Depository Libraries.

We have, as I have indicated, 25 million documents classified in 112,000 subclasses; the whole world of technology is broken down into these 112,000 subclasses. We have a database to show where this documentation is located. We have chosen a bureaucratic name—CASSIS [Classification and Search Support Information System]. We provided that system last year on-line to our Patent Depository Libraries, and we are very surprised with the results. Over 16,000 electronic inquiries each month come on this CASSIS network. This reinforces our view that the public has an interest in patent information and that we have an obligation to serve that interest.

In the international area, we have been involved in a number of activities affecting the protection of patents and trademarks internationally. Foremost has been the 9-year effort that you mentioned, Mr. Chairman, to revise the Paris Convention for the Protection of Industrial Property.

I was honored to be able to head what I believe was a very strong delegation for the Third Session of the Diplomatic Conference in Geneva late last year. Not only did we have outstanding industry advisers, but we were also fortunate enough to have congressional advisers from the committee staff, Mr. Oman and Ms. Zebrowski. They contributed greatly to our efforts in Geneva. The delegation also included former Congressman Railsback and key staff members of the House Committee on the Judiciary.

The Second Session of the Diplomatic Conference held in Nairobi resulted in conclusions which were not acceptable to the United States. All countries except the United States gave tentative approval to a provision that would have permitted compulsory exclusive licenses if the national authorities found that a patent had been abused and that nonworking was an element of the abuse.

Tentative approval was also given to a provision authorizing forfeiture of patent 5 years after grant without the precondition that a compulsory license must be issued.

The U.S. delegation approached the third session in Geneva with two goals. Our first goal was to avoid formal adoption of the Nairobi text. We indicated that we were willing to work with developing countries and the other countries to reach a text that was acceptable, but the Nairobi text was not something that we could agree to.

Our second goal was to try to formulate a compromise that all nations could adopt. Following several informal meetings, we were able to assist in the formulation of a compromise proposal which would undo the worst of the Nairobi text.

The compromise would require all compulsory licenses to be nonexclusive, so a patentee could not be shut out of a market by virtue of his or her own patent, which would have been the result with the Nairobi text. The compromise would permit developing countries to revoke a patent after 5 years, but only if a compulsory license had been issued or a licensee was not available. The compromise would have given developing countries the option of not applying another article of the Convention dealing with process patent protection.

The compromise text was formulated late in the third session, and there was not adequate time to consider fully its implications. Accordingly, prior to adjourning the third session, we agreed on a 1-week extension which carried us through the Thanksgiving week, where nearly round-the-clock negotiating took place.

Unfortunately, we still were not able to reach agreement on the compromise text, but it was put in the record by the chairman of main committee I, Ambassador F. Jiménez Dáirla of Argentina. In our opinion, the compromise text will form the basis for our continuing negotiations.

An extraordinary session of the Paris Union Assembly was convened 5 weeks ago in Geneva to determine how best to proceed

with the fourth session which is scheduled to be held in Geneva, February 27 to March 24, 1984.

Last June, we negotiated a cooperative agreement with the European Patent Office in the area of automation. While we are moving very rapidly and aggressively in automation, we believe we should not develop systems that are incompatible with international patent systems.

We have a very good agreement with the European Patent Office and we are already hard at work exchanging computer programs and documentation. That agreement served as the basis in January of this year for a similar agreement with the Japanese Patent Office. In October the United States will host a trilateral meeting of the Japanese Patent Office, European Patent Office, and the U.S. Patent and Trademark Office. The goal is to tie the three big offices of the world together in compatible automation systems.

A real advantage of the Japanese agreement is that the Japanese will provide us English language abstracts of Japanese patents in machine readable form. In return, we will provide them with English language abstracts of U.S. patents. The advantages to us are clear—most of the Japanese examiners can read English, but almost without exception, our examiners cannot read Japanese. So we will have a window into their patent system through machine-readable abstracts in English.

Before leaving the subject of the European Patent Office, I would like to comment also on the fact that we have another agreement with them, the patent cooperation treaty. That treaty, as you know, facilitates the international filing of patent applications and we are a designated international searching authority. Any resident or national of the United States can file an international application. We will search it and transmit the results of our search and the application to the countries for which patent application is sought. Since many of our industrial people very much want to reach informed decisions on whether they should file in the European Patent Office and seek European patent protection, we have arranged for the EPO to be an international searching authority for the United States. This opens up the option for U.S. industry to go to the European office and get an international search, and based on an international search, decide whether they are going to file in the European office and our office.

This procedure is not compulsory, obviously, but we estimate that maybe 600 to 700 cases a year will be filed. The most important ones will be handled through this new cooperative venture with the European Patent Office.

Finally, I was pleased to be able to visit the People's Republic of China earlier this year. The Chinese informed me at that time that by the end of this year, they will have established a Chinese patent system. It will be a Western-type patent system as opposed to a Soviet-type system which also provides inventors' certificates. We regard that as a very beneficial thing. For China, it will spur the introduction of new technology into that country, which is truly, as large as it is, still a developing country. For U.S. industry, it will provide stimulus and will allow industry to move into that market under a patent system.

In the legislative area, on March 11, Secretary Baldrige signed a letter to the President of the Senate transmitting a copy of our proposed legislation together with a sectional analysis. Copies have been made available to the subcommittee.

The most significant aspect of this proposed legislation is the provision which would establish a defensive patent. We believe that this will benefit both private industry and Government agencies in assuring their right to practice their own invention without getting the offensive right to be able to exclude others.

It is a defensive use of the patent law to protect your own right to practice your invention if you don't want to sue someone else.

A classically good example of where that might be useful is the Federal Government, which now owns 28,000 patents in force. Most of those are owned by the Department of Defense, and most were obtained for defensive purposes, to assure that the Department of Defense could use their own inventions and their contractors' inventions in their very large Federal procurements.

The defensive patent would be ideal for them. It would establish their right to use their invention, if they didn't want to sue somebody, for example, for infringing a Sidewinder invention in this country. This defensive patent would be cheaper and faster for DOD to acquire.

Our proposed legislation includes a number of other amendments, most of which I would characterize as housekeeping amendments. We simply went through the code and decided where improvements might be made in the nature of detail.

We anticipate that there may be other legislative items considered by the subcommittee in which we will have a strong interest.

For example, the administration continues strongly to support the concept of patent term restoration. When the present system of necessary regulatory screening, say in the pharmaceutical and the agricultural chemical areas, are overlaid with the fixed 17-year term, the results really do discriminate against important segment of our most innovative industries.

To redress this inequity, we would be pleased to work with the subcommittee in any way possible. In addition, we are very interested in the Trademark Counterfeiting Act of 1983—S. 875—which you introduced, Mr. Chairman, and we would be pleased to offer any assistance to the subcommittee we possibly could in securing the enactment of legislation in this area.

Yesterday, I met with the Cabinet Council on Commerce and Trade on the counterfeiting measures, and they took the unanimous position that the administration would support—though it wasn't focused directly on S. 875—in principle greatly strengthening the measures against counterfeiting and including strong criminal penalties and civil damages as are anticipated by your bill.

They also endorsed strongly the efforts that are being pursued through the U.S. Trade Representative to obtain agreement on a GATT code which would require the forfeiture and seizure of counterfeit goods coming into any country that would adhere through the GATT system to the new code. So we will be on record strongly in support of anticounterfeiting measures. It really is a problem that needs to be addressed.

Mr. Chairman, during the past 2 years, we have been pleased to develop a very close working relationship with you and other members of the Committee on the Judiciary and their staff. That cooperation has been indispensable in our view to the progress we have been able to achieve. For our part, we look forward to the same pattern of cooperation during this Congress and beyond.

Mr. Chairman, that concludes a summary of my prepared statement. I would be pleased to answer any questions you or the subcommittee may have.

Senator MATHIAS. First of all, let me just say that I am amazed by the amount of foreign travel that your job has involved.

Mr. MOSSINGHOFF. So is my wife, Mr. Chairman.

Senator MATHIAS. I do not make that as a hostile comment at all, but you have, I suspect, done more foreign travel than a great many of your predecessors, probably more than all of your predecessors in the first century of the Patent Office when the patent system was viewed as a domestic system.

The lesson that I would derive from your comments about the various international activities in which you have engaged is that the patent system now, in order to be effective, has to be broadly and widely observed on an international basis, and if it is not, it is not going to be worth very much.

Mr. MOSSINGHOFF. I agree totally with that. It is a challenge that the United States faces, and I think it is a good allocation of resources to work to strengthen industrial property protection worldwide.

U.S. industry is the largest owner of intellectual property, broadly characterized, in the world right now. But the statistics that are produced by the World Intellectual Property Organization indicate that, for example, Japan is the largest acquirer of intellectual property. The Japanese file more applications than we do, so you can just see the time span as those patents mature and are in effect for between 17 and 20 years. U.S. industry is going to have to meet that challenge.

As an aside, I think one of the organizations in the United Nations that the United States really should support and does support adequately is the World Intellectual Property Organization. I think the staff in Geneva and the Director General have been instrumental in convincing a very skeptical group of developing countries that it really is in their best interest to have strong patent and trademark-type protection, not to help U.S. industry, but for their own good, for self-serving reasons.

I think WIPO and Director-General Arpad Bogsch have been very effective in doing that.

Senator MATHIAS. When you consider that at this point 20 percent of our industrial production must be exported to keep our economy floating and to keep jobs available in the United States, you can see how important the international patent system is.

There would be very little incentive for people to buy American products if there were no patent protection and if they could be counterfeited broadly around the world. So, every American worker really has a stake in the patent system.

That being so, let me ask you a few questions about the system. We authorized a very large increase in patent fees; we did so over

the expression of some concern that higher fees would stifle independent inventors, the small individual effort at innovation.

Do you think that is happening? Do you think we will stifle innovation as a result of larger fees?

Mr. MOSSINGHOFF. No, I do not think so, Mr. Chairman, particularly with the compromise that was worked out last year. We added about $7 million to our budget with the agreement of the Office of Management and Budget to subsidize the small entities—independent inventors, small business concerns, and nonprofit organizations—so that they only pay half of the fees that the large entities pay.

I think that was critically important to our getting the legislation passed, and important substantively in making sure that the system still is available to the small entities.

We had a tremendous number of applications filed in September. You have been over to our office in Crystal City. We literally had a traffic jam of mail trucks trying to get to our loading docks to file patent and trademark applications before the new fees came into effect on October 1.

In the trademark area, we had 12,000 more applications filed in September than we normally receive. In the patent area, we had almost 10,000 more patent applications than we normally get. Immediately following that, since every patent lawyer and trademark lawyer in the country had cleaned off his or her desk to file their patent applications, we had a real dip in applications in October and November.

Starting in December, January, February, and March, we are right up to where we should be. It is our forecast that the fees will have, based on patterns of filings, no effect at all. It moved forward a large number of cases that would have been filed in the first part of this fiscal year; they simply came in earlier. Other than that, if you total both fiscal years 1982 and 1983 together, we do not see any effect at all on the patterns of filing.

Indeed, the fees are a small percentage of what it costs someone to develop, protect, and market an invention.

Senator MATHIAS. What about the maintenance fee, however? That is a new wrinkle that goes beyond the mere question of money, because if you have to pay a maintenance fee, there is a nuisance element there that is more than just economic.

Mr. MOSSINGHOFF. Well, in formulating the maintenance fees, in Public Law 96-517 the administration recommended, and Congress enacted, three times during the 17-year life—3½ years, 7½ years, and 11½ years. For the small, independent inventor that amount is $200 after 3½ years, $400 after 7½. It is really a nominal amount of money if they are working their invention.

I think the concept behind maintenance fees is sound. Indeed, they are——

Senator MATHIAS. But there is a nuisance aspect here. In the past, if you got a patent, you were safe for 17 years; you did not have to think about it for 17 years. Now you have to remember that there are certain critical dates when you have to refresh the revenue.

Mr. MOSSINGHOFF. Right. We have grace periods that are built in to try to make that as simple as possible. It is a system that is

almost universally adopted. The United States was the last country among all the developed countries that did not have maintenance fees, and we do not have annual fees. Most of the European countries have annual maintenance fees. As I say, we have limited it to three times during the life of the patent. I think it is a good way to finance the improvements that we are making to the Office.

In effect, for the people who are making money on their patents, it is a nominal sum. Two hundred dollars in 7 years is not a lot of money.

Senator MATHIAS. How many patents are ultimately declared invalid as a result of litigation? Can you give me some percentage, just off the top of the head?

Mr. MOSSINGHOFF. I would say about 50 percent of litigated patents are declared partially or totally invalid.

Senator MATHIAS. Fifty percent.

Mr. MOSSINGHOFF. As I see a sweep of history in the patent system, looking back on last year I think that the historians will remember two great advances. One was the bill that let us get ourselves in sound financial shape.

The other was the establishment of the Court of Appeals for the Federal Circuit. Prior to that we really had an uneven application of the laws. The eighth circuit in St. Louis, for example, over a 20-year period, held 80 percent of the patents coming before them invalid, whereas the fifth circuit down south held a much lower percentage invalid.

By establishing the Court of Appeals for the Federal Circuit, a single standard of patentability will be established. The same court that tells us what to issue as a patent will now tell the district court what is or is not patentable. That is a great step in bringing the system forward.

Senator MATHIAS. Should the court go one step further and say that you should refund some part of the fees? If people end up without a patent, should they not get their money back?

Mr. MOSSINGHOFF. So few patents are litigated that, financially, you are talking about a handful of patents each year. I can refine these for the record if you wish, but a gross statistic is that there are maybe 1,000 patent infringement cases filed each year and perhaps 100 go to final judgment each year.

So, if 50 percent are held invalid, you are talking about 50 patents that, from an operational point of view, would not be a problem. The biggest problem is that when a patent is held invalid, it is not the fees that people are worried about. They are concerned about the investment, the marketing, the R&D and everything that they put behind the patent.

Senator MATHIAS. There might be some small bond for them so that they at least got their fee back.

Mr. MOSSINGHOFF. As I say, financially it would not be a major item.

Senator MATHIAS. I am going to have to suspend for just a minute. The majority leader is on the telephone and that is a call I cannot reject.

[Whereupon, a brief recess was taken.]

Senator MATHIAS. Fees, as they were calculated in the bill, were supposed to pay really all the costs of running the Patent Office, and that is the hope.

Mr. MOSSINGHOFF. Well, there are some things that would still be financed even after full maintenance fees are received—things such as the patent public search room. That would still be something that would be financed through appropriations.

Senator MATHIAS. Now, that is not true as far as trademarks are concerned.

Mr. MOSSINGHOFF. No, it is not. On the patent side, primarily because the examiners have to have access to both U.S. and foreign prior art or patents and scientific journals——

Senator MATHIAS. But the feepayers are expected to subsidize the trademark search library.

Mr. MOSSINGHOFF. That is because we only have one trademark search room and the logistics are such, with only 100 examiners, that we would have that search room anyway just for the examiners.

Because it is a good idea, we let the public into the examiners' searchroom.

Senator MATHIAS. The fee also contemplates working on the backlog.

Mr. MOSSINGHOFF. That is right.

Senator MATHIAS. So, the people who got in early and got their applications in early got in at the bargain rate.

Mr. MOSSINGHOFF. That is right.

Senator MATHIAS. The people that are coming on behind are going to bear—the children are going to bear the sins of the fathers in this case.

Mr. MOSSINGHOFF. That is a fair analysis. What we did in working on the trademark fees is that we totally opened up our whole budget process to the U.S. Trademark Association, which is the single association most interested.

I think the chairman of their advisory committee, who is also Chairman of our Advisory Committee, John Lanahan, knew more about our budget during the fee debate than some of our PTO budget examiners.

Based on knowing that we were going to use the fees to work on the backlog, he proposed a fee schedule to Chairman Kastenmeier in the House. The House Judiciary Committee agreed to raise the fees to the recommended levels, if we would agree with it—which we did—and we would use the 1984 and 1985 fees to, in effect, work off whatever backlog we have.

Senator MATHIAS. Of course, the same principle applies to the capital investment in the automated system. The current feepayers are really paying for the investment which will be hopefully available for a long time to come.

Mr. MOSSINGHOFF. Well, we are really not making any capital investments there. The systems that we are bringing on are all leased systems. As new technology improves, you can change your system.

We do have, for example, a 7700 Burroughs main-frame computer that will be delivered this spring. It is a leased computer and as

we use it to process cases, the people whose cases are being processed will continue to pay the lease costs.

We really do not have any capital expenditure at this point and are not planning to have any.

Senator MATHIAS. One of the challenges that I see for this committee, and I think the members of the committee share this sentiment, is the matching of new technologies with old laws, which is a tough one; perhaps not old laws so much as old legal concepts, because the laws themselves may have to be changed.

The boundaries of intellectual property protection are shifting as a result of development. The distinctions between patent and copyright which used to be fairly clear are not as clear anymore. The design, for example, of a semiconductor chip comes to mind, because we are going to shortly have to consider a proposal to grant copyright protection for semiconductor chip design.

Now, we will have to decide whether this ought to be copyright or whether it ought to be patent. When you had a printed book in the past, there was not much doubt; that was a copyright.

When you had a television show, well, that gets a little bit fuzzier, but still that is copyright. But now where do we go? What do you think? Should a semiconductor chip be patented or copyrighted?

Mr. MOSSINGHOFF. I think there ought to be some protection provided for this industry. Semiconductor chip technology is an area where people invest a lot of money to produce something that is extemely useful and extremely easy to copy. My instinctive reaction would be that it should be protected.

In many cases the design of semiconductor chips probably does not come up to the standard of patentability. There is a requirement that to be patented, something must be unobvious. A lot of these chip technologies are not as much unobvious as they are very expensive to design.

That is much like computer programs where you have to invest a lot of money and it is easily copied, but it is not necessarily unobvious. I would think copyright-type protection might be more appropriate than patent-type protection, although clearly, as you say, it would be different from a copyright because the life plus 50 years makes no sense at all for very high technology products. The time periods would not make any sense.

Senator MATHIAS. But this just illustrates the kinds of new questions that are going to come before the Congress, and I suspect come with increasing volume.

Mr. MOSSINGHOFF. I agree totally. That is also a reason why I think we are so delighted that this subcommittee has been reformed and reconstituted. Protection of these high-technology products is an extremely important area, and these are very difficult questions to address.

Senator MATHIAS. Another prickly question before us that the Senate addressed last year is patent term restoration. Now, we passed such a bill in the Senate; a similar bill failed in the House.

In your statement, you say you support that concept. Do you have any preference between the kind of legislation that was floated in the Senate and in the House last year?

Mr. MOSSINGHOFF. We support the concept very strongly, and think there is an inequity that needs to be addressed. We have not taken a position on the House-reported bill versus the Senate-passed bill.

Senator MATHIAS. Let us turn to the counterfeiting question for a moment. In your opinion, how serious is the problem of trademark counterfeiting?

Mr. MOSSINGHOFF. I think it is extremely serious. There are obviously billions of dollars involved; there are jobs involved. When people talk about counterfeiting, they think originally of things like Cartier watches or Cross pens—luxury-type items. But there have been documented cases, for example, of aircraft bolts used to hold engines on airplanes and of helicopter parts. So, we are not talking just about luxury items; we are talking about public safety.

Senator MATHIAS. Brake parts?

Mr. MOSSINGHOFF. That is right, brake parts. In fact, there is a documented case where the coffee crop in Kenya was partially destroyed because somebody had counterfeited Chevron's herbicide. It was an Ortho product with the Ortho trademark on it. They applied this to their crop and destroyed part of the crop. We are talking about a very serious matter.

I was pleased yesterday that the Cabinet Council on Commerce and Trade, under the chairmanship of Secretary Baldrige, took the view that the administration should strongly support both domestic and international anticounterfeiting measures.

Senator MATHIAS. What remedies are there today for the victims of counterfeiting? Is there anything adequate that victims can resort to?

Mr. MOSSINGHOFF. I really do not think so. The trademark laws were amended, I believe, in 1978 to provide that counterfeit goods coming in would be seized and destroyed. That was a step forward.

But there is still the problem that if you were a counterfeiter, you would build in some form of contingency for that—adjust your prices accordingly—and if your goods were destroyed 1 out of 10 times, you would probably still be able to make an awful lot of money.

We really believe that strong criminal sanctions and very heavy penalties should be applied.

Senator MATHIAS. Last week, the Patent, Trademark and Copyright Journal published a draft of a new administration antitrust and patent bill. Did you have a hand in drafting that bill?

Mr. MOSSINGHOFF. We worked pretty closely with Bill Baxter on the bill, and Secretary Baldrige strongly supports it.

Senator MATHIAS. Do you strongly support it?

Mr. MOSSINGHOFF. Yes.

Senator MATHIAS. In its entirety?

Mr. MOSSINGHOFF. Yes; I think it has some very good provisions.

Senator MATHIAS. What about defensive patents, which is proposed by the administration?

Mr. MOSSINGHOFF. I think that is a good option to provide.

Senator MATHIAS. Do any other countries issue defensive patents?

Mr. MOSSINGHOFF. No; they do not, and for probably a very good reason. The United States has a system of priorities that is re-

ferred to as a "first to invent" system. That is, the first inventor, whether he is the first to file or not, is the one who has the patent and the right to practice the invention.

All the other countries in the world, with the exception of Canada and the Phillipines, have what is called a first to file system. That is, whoever files first is conclusively presumed to be the first inventor.

With a first to file system, a publication in a technical journal is as good as a defensive patent. If we had a first to file system, I do not think we would propose a defensive patent.

Senator MATHIAS. As children, we read about the story of the selfish fox. He does not want to use something himself, but he wants to keep anybody else from using it. Is not a defensive patent a tool for a selfish fox?

Mr. MOSSINGHOFF. Well, in effect, it says that if a person who is the first inventor, chooses not to sue other people on the invention, that person can exercise the option to insure his or her right to use the invention in a cheaper and more expeditious way. And this is an option the Government might use.

Senator MATHIAS. I am concerned that there is some opportunity for abuse in that. I have not formed any final judgment, but we may have to hedge that in some way.

Mr. MOSSINGHOFF. We would be pleased to work with you if you have concerns.

Senator MATHIAS. You see the possibilities?

Mr. MOSSINGHOFF. If it is used properly, the defensive patent would not, in effect, keep things off the market. It would be used by someone who was ready to move the invention into commerce, but who wanted to assure his or her right to do that and did not care whether there was competition.

Ideally, then, a defensive patent would save the inventor's money and time and our money and time. The inventor would assure his or her right to use the invention and would move the product into commerce through his or her own devices. Inventors simply would not be able to prevent other people from competing with them.

[The prepared statement of Mr. Mossinghoff and additional submissions for the record follow:]

STATEMENT OF
GERALD J. MOSSINGHOFF
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS

Mr. Chairman and Members of the Subcommittee:

I welcome this opportunity to appear before your Subcommittee today. We at the Patent and Trademark Office welcome the reconstitution of this Subcommittee and look forward to working closely with you. The Subcommittee has already set up an ambitious and impressive legislative agenda. The importance of the issues under consideration to the well-being of the Nation cannot be overstated, and therefore, we would be pleased to assist you in any way possible.

My prepared statement covers three areas: (1) a brief discussion of the status of our programs to upgrade the U.S. Patent and Trademark Office to improve its service to industry and inventors, (2) a summary of our involvement in activities affecting the protection of patents and trademarks internationally, and (3) an outline of our legislative program for this year.

In the past, the Patent and Trademark Office did not serve the needs of inventors and industry adequately. Huge backlogs clogged our operations, decreased efficient processing and delayed the granting of patents and registering of trademarks. The backlogs, hitting record highs and continuously growing, inhibited the introduction of new technology into commerce.

The Administration made a commitment to turn things around at the Patent and Trademark Office through an aggressive three-point plan:

- To end the 20,000 case-per-year growth in the huge backlog of pending patent applications by 1984 and then to reduce the time it takes to get a patent--now well over two years--to 18 months by 1987 (Plan 18/87).

- To register trademarks in 13 months, with an opinion on registrability being given an applicant in three months by 1985 (Plan 3/13).

- To take aggressive steps toward complete automation of the Office by 1990.

The key to achieving these goals without increasing Federal expenditures was to increase user fees to realistic levels. With

the support of the Committee on the Judiciary, we were able to do this with the enactment last August of P.L.97-247. This legislation not only raised the fees, but it authorized the Office to use the fees it receives to improve service to industry and inventors.

P.L.97-247 also set the current levels of maintenance fees, payable at three times during the life of a U.S. patent, to be received beginning in 1986. Those fees, together with filing and issue fees, will provide an increasing source of revenue over the next decade. Further, the fees now in effect can be adjusted administratively every three years to take into account any inflation that may have occurred. Thus the Patent and Trademark Office is now on a sound financial basis to achieve the Administration's three-point plan.

The 1984 program level request for the Patent and Trademark Office is $171,026,000, an increase of $18,072,000 over the continuing resolution program level for 1983. With projected offsetting fee receipts authorized by P.L. 97-247 of $88,526,000, the 1984 appropriation request is less than 50% of our operating costs, or $82,500,000. This is a net increase of $8,645,000 when compared to the 1983 continuing resolution level of $73,855,000.

Today I am pleased to report to you that we are on schedule in our efforts in each part of the three-point plan. Our annual report for FY 1982 details our actions on the three-point plan. This report is now at the printers and, with your permission, Mr. Chairman, I would like to submit it for the record when we receive it. I will now outline for you our progress toward each of the three goals.

Plan 18/87 in Patents

We are committed to end the growth in the backlog of pending patent applications in 1984 and to reduce the time it takes to get a patent to 18 months by 1987.

The backlog of pending patent applications now stands at 246,000 cases. To halt the growth in that backlog and then to reduce it to a more manageable 180,000 by 1987, we have hired over 300 patent examiners during the past two years. In the next three years, we will hire an additional 600 examiners, bringing our professional examining staff to over 1500. We are extremely pleased with our hiring program. More than half of the examiners we hired this past year are honors engineering graduates.

To assimilate the new examiners into the Office, we have acquired over 32,000 square feet of new space. We have established 30 new

organization units, called "Art Units." And we have greatly expanded our examiner training program.

To support the examiners, we have installed word processing systems in each of the examining groups, eliminating altogether the handwritten examiner opinions which had become an object of well-deserved ridicule throughout the world. During FY 1983, we plan to expand the Board of Appeals and to strengthen all areas of clerical and logistic support, including a greater reclassification effort to update the examiners' files.

Although we are on target to meet this goal, much remains to be done. Before we can reduce the time it takes to get a patent, we must first "turn the corner," that is, begin to dispose of more applications than we receive. We now expect to turn the corner in patents in FY 1984, when average pendency time will peak at about 27 months.

Plan 3/13 in Trademarks

Our second commitment is to reduce the backlog in trademarks--a record 125,000 cases--so that by 1985 we will give first opinions on registrability in three months and finally dispose of cases in 13 months.

We now have a record high 105 lawyers examining our trademark applications. They are working in eight newly established divisions or "law offices." Even though trademark applications reached a new high in fiscal year 1982--over 73,000 were filed during that year--we are reducing the time it takes to register a trademark by two months each year. We confidently predict we will reach the goal of 13 months, at least by 1985.

Automating the Patent and Trademark Office

The Patent and Trademark Office has more than 370,000 pending patent and trademark cases. More than 20,000 papers which must be incorporated into those files are received each day. Our patent examiners review 25 million documents classified into 112,000 subclasses of technology before deciding whether inventions are patentable. An estimated 7% of those 25 million documents are missing or misfiled at any given time. The all-paper hand-file-and-retrieve system reduces our productivity and our ability to respond to the needs of the public. Increasingly, decisions to grant patents and register trademarks are based on incomplete information.

In response to the directive of P.L.96-517, we completed a comprehensive plan to achieve a fully automated Patent and

Trademark Office by 1990. We presented the details of that plan to Congress on December 13. With your permission, I would like to submit a copy of the executive summary of that report for the record.

The automation plan describes a three-phase program. During the first phase, which extends through calendar year 1984, all trademark functions and one of our 15 patent groups, Group 220, will be automated. In the second phase, which runs through 1987, all patent groups will be automated and an essentially paperless operation achieved. The third and final stage will provide worldwide electronic access and expanded dissemination capabilities.

The Patent and Trademark Office has entered into a $2 million agreement with the MITRE Corporation for the first year of a multi-year contract for systems engineering and other work to help us put the plan into operation.

I believe the long-term stability of the patent and trademark systems hinges on the successful implementation of this automation program. The Administration is committed to a first-class Patent and Trademark Office. Implementing the automation master plan will be a significant step in that direction.

Information Dissemination

An important part of our mission at the Patent and Trademark Office is to promote the greater dissemination and use of patent data and information. One way we do this is through our Patent Depository Library Program. A Patent Depository Library, or PDL, is an established library which has agreed to acquire a collection of U.S. patents. We now have 38 such libraries across the United States, providing remote access to the same U.S. patent information available in the Public Search Room of the Patent and Trademark Office in Arlington, Virginia.

The impact of these libraries is enormous. Through these technology centers, millions of U.S. residents now have access to needed patent information that was previously difficult to obtain. About 47% of the population is now within commuting distance of a patent collection, and we have an aggressive expansion plan for the PDL program to increase that percentage. Approximately 15,000 members of the public obtain patent information at the PDLs each month, and this number is increasing.

One of our most promising programs for disseminating patent information is the development of the Classification And Search

Support Information System, known as CASSIS. This is an automated system that provides the public with direct, on-line access to patent information. The data base is available in the PDLs and in our Public Search Room. Computerized inquiries on this data have been running at about 16,000 each month at the PDLs, with an additional 40,000 queries in the Public Search Room.

International Activities

We have been involved in a number of activities affecting the protection of patents and trademarks internationally. First and foremost has been the nine year effort to revise the Paris Convention for the Protection of Industrial Property, a matter in which you, Mr. Chairman, have a keen interest and which you have followed closely. I headed what I believe was a very strong delegation to the Third Session of the Diplomatic Conference which was held in Geneva, Switzerland, late last year. Not only did we have outstanding industry advisors with the delegation at all times, we were also fortunate enough to have Congressional advisors from the Committee staff such as Ralph Oman, now the Staff Director of this Subcommittee, and Kathy Zebrowski, Minority Counsel to the Committee on the Judiciary. The delegation also included former Congressman Railsback and key staff members of the House Committee on the Judiciary.

At the Second Session of the Diplomatic Conference held in Nairobi in 1981, all countries except the United States gave tentative approval to a provision which would have authorized compulsory exclusive licenses in situations where the national authorities of the country have found an abuse of patent rights, and non-working was an element of that abuse. Tentative approval was also given to a provision authorizing forfeiture of patent rights five years from grant without the precondition that a compulsory license issue which did not result in working.

The United States delegation approached the Third Session of the Conference with the goals, first, of avoiding formal adoption of the Nairobi text and, second, of trying to formulate a compromise that all nations could adopt. Following several informal meetings, we were able to assist in the formulation of a compromise proposal which would undo the worst features of the Nairobi text. The compromise would require all compulsory licenses to be non-exclusive and would permit developing countries to revoke a patent after five years from grant for failure to work but only if a compulsory license has been issued and has not resulted in working or no applicant for a compulsory license was available. The compromise would have given developing countries the option of not applying Article 5quater dealing with process patent protection.

The compromise text was formulated late in the Third Session, and there was not adequate time to consider fully the proposal on its merits. Accordingly, prior to adjourning the Third Session, the participants agreed to a one-week continuation in November. Despite nearly round-the-clock negotiating efforts during that week, the Conference was unable to agree upon the compromise proposal. Importantly, however, the compromise text was made an official document of the Conference and will in our view serve as the point of departure in future deliberations.

An extraordinary session of the Paris Union Assembly was convened five weeks ago to consider the continuation of the Diplomatic Conference on the Revision of the Paris Convention. The Assembly decided to hold a Fourth Session of the Diplomatic Conference in Geneva from February 27 to March 24, 1984. Preparations for the Fourth Session have already begun, and I hope that we can continue the positive results that were achieved last year in Geneva. I also hope that we will again be privileged to have a strong Congressional delegation with us during the Fourth Session.

Last June, we negotiated a cooperative agreement with the European Patent Office (EPO) on advanced documentation and automation. Under that agreement, each Office will cooperate in efforts to introduce automation by exchanging information about plans, standards, equipment, software, systems and study results; exchanging patent data in magnetic tape or microfilm form; initiating efforts to harmonize existing documentation systems; and establishing joint projects and providing technical experts to implement new systems.

In January of this year, we negotiated a cooperative agreement with the Japanese Patent Office (JPO) which was even more extensive than the one negotiated with the EPO. In addition to the items to be exchanged under the agreement between us and the EPO, the JPO will provide us with magnetic tape containing Japanese patent bibliographic data and English language "Patent Abstracts of Japan" (both the file of existing abstracts as well as future updates.) Further, the JPO will study the possibility of preparing English language texts of the first claims in Japanese patent specifications and is in the process of providing a study sample of some 200 such claims.

This fall, we will host a trilateral meeting of the three patent offices involved, at which time we hope to solidify further the cooperative efforts to introduce automation in the three offices. I am convinced that we will be able to achieve more through direct and expeditious bilateral or trilateral systems of cooperation than we could on our own, and I am quite excited about the prospects for the future.

Before leaving the subject of the European Patent Office, I would like to comment on the cooperation between us and the EPO in connection with the Patent Cooperation Treaty. The United States is one of the 33 member countries of the Patent Cooperation Treaty, the international agreement which facilitates the filing of patent applications abroad. Under the treaty, a U.S. national or resident can file an international application in the Patent and Trademark Office designating those member countries in which patent protection is desired. The applicant then receives an international search report before having to commit the resources necessary to pursue multinational protection. Under an agreement reached last spring between us and the EPO, applicants are now given the option of having the international search of their PCT applications performed either by us or the EPO. Beginning with two applications in the month of October, the number has increased steadily to the point that the EPO received 50 international applications from U.S. residents and nationals for international searches in the month of February. The EPO now estimates that it will receive 600 to 700 international applications from U.S. nationals and residents in 1983 for international searches under this new arrangement.

The establishment and maintainance of strong and certain patent and trademark protection throughout the world continues to be important for United States interests. Assistant Commissioner Michael K. Kirk just returned from Korea and Taiwan, where he led discussions of a Government/industry delegation on patent, trademark and related issues.

Finally, I was informed earlier this year in China that they plan to enact a patent law in the near future, probably before the end of the year. That is a very significant and beneficial development.

We have worked very closely with officials of China in their planning. For example, our Administrator for Documentation, Mr. William Lawson, was in China helping them establish regional patent documentation centers and some Chinese officials visited our Office last month.

Legislative Activities

On March 11, 1983, Secretary Baldrige signed a letter to the President of the Senate transmitting a copy of proposed legislation together with a sectional analysis. Copies have been made available to the Subcommittee. The most significant aspect of this proposed legislation is the provision which would establish a "defensive patent." We believe that this will benefit both private industry and government agencies. In addition, the proposal contains a number of perfecting amendments to the patent laws.

At present, there is no simple, practical method by which an inventor may safeguard his right to work an invention without obtaining a patent. Section 2 of our proposed legislation would establish a new procedure by which an inventor could acquire a patent which would be valid for defensive purposes only. This defensive patent would be faster and less expensive to obtain than a traditional patent. It would not permit an inventor to exclude others from working the invention, but it would serve as a reference against future applications and protect the inventor from having a patent on the same invention later issued to someone else.

Previous attempts to accomplish this through regulations have not been successful. With a statutory basis, the defensive patent, with one important exception, would serve the inventor just like a patent which issued through the usual procedures. The one important exception is that a defensive patent could not be enforced against others or serve as the basis for a claim for compensation. In exchange for a waiver of enforceability, the fees charged for a defensive patent would be reduced. Since there would be no substantive examination, the PTO could charge smaller processing fees than are necessary for examined patents. In addition, no maintenance fees would be charged.

The defensive patent would be available to any applicant. Its use would be strictly optional. An applicant would be free to change from a defensive to a regular patent prior to its issuance. This patent would not be useful to every applicant since it lacks the exclusivity normally associated with a patent. However, it would provide inventors with one more option for the protection of their industrial property.

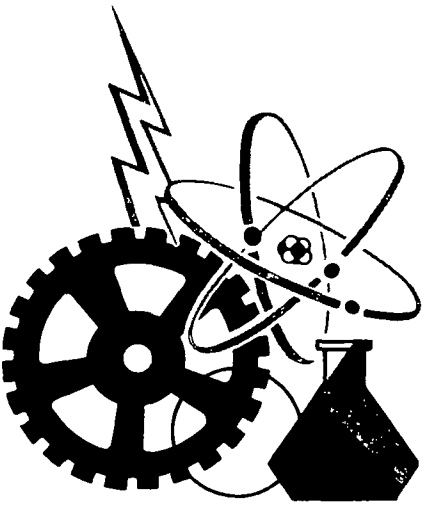
Our proposed legislation includes a number of other amendments which are detailed in the sectional analysis.

We anticipate that there may well be other legislative items considered by this Subcommittee in which we will have an interest. For example, we continue to support strongly the concept of patent term restoration. When the present systems of necessary regulatory screening are overlaid with the fixed 17-year patent term, the results discriminate against very important segments of our industry. To redress this inequity, we would be pleased to work with this Subcommittee in any way possible. In addition, we are very interested in the "Trademark Counterfeiting Act of 1983", S.875, introduced by you, Mr. Chairman. Again, we offer to assist this Subcommittee in any way we can with respect to these and other measures which are likely to be considered during the 98th Congress.

Mr. Chairman, during the past two years we have developed very close working relationships with you, other members of the Committee on the Judiciary, and the staff. That cooperation has been indispensable to the progress we have been able to achieve. For our part, we look forward to that same pattern of cooperation during this Congress and beyond.

Mr. Chairman, this concludes my prepared statement. I will be pleased to respond to any questions which you or the Subcommittee may have.

Commissioner of Patents and Trademarks



ANNUAL REPORT
FISCAL YEAR '82

U.S. DEPARTMENT OF COMMERCE/PATENT AND TRADEMARK OFFICE

U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary

U.S. PATENT AND TRADEMARK OFFICE
Gerald J. Mossinghoff, Commissioner
Donald J. Quigg, Deputy Commissioner
Rene D. Tegtmeyer, Assistant Commissioner for Patents
Margaret M. Laurence, Assistant Commissioner for Trademarks
Bradford R. Huther, Assistant Commissioner for Finance and Planning
Michael K. Kirk, Assistant Commissioner for External Affairs
Theresa A. Brelsford, Assistant Commissioner for Administration

March 1983

Vigorous and effective patent and trademark systems are indispensable to our economic growth and national well-being. This report describes the operations of the Patent and Trademark Office during FY 1982 and the status of the Office at the close of that year. It reviews the important steps that have been taken to upgrade operations at the office and thus bring about lasting and substantial improvements in our service to inventors and industry.

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Annual Report of the Commissioner of Patents and Trademarks Fiscal Year 1982

MISSION

The Patent and Trademark Office (PTO) promotes the national economy by administering both the patent and trademark laws of the United States.

Patent laws encourage technological advancement by providing incentives to invent, invest, and disclose new technology. The Patent and Trademark Office's primary role in administering these laws is to examine patent applications and grant patent protection for qualified inventions. The PTO is also responsible for collecting, assembling, and disseminating the technological information disclosed in patent grants.

Federal trademark laws promote an ordered and healthy economy by enabling Federal registration of trademarks. Trademarks help prevent product confusion among consumers and foster public awareness of the source of goods and services in the marketplace. The PTO examines applications to register trademarks and grants Federal registration to the owners of qualified marks. The PTO also maintains a forum for resolving disputes on trademark rights.

The PTO is an agency of the U.S. Department of Commerce and is located in the Crystal City office complex in Arlington, Va.

PROGRESS ON STEPS TO IMPROVE THE PATENT AND TRADEMARK OFFICE

In fiscal year 1982 the PTO made significant initial progress in meeting all of its major goals. The first signs of progress became evident in the program to reduce the increasing backlogs and pendency times that have plagued the PTO in recent years. Steps toward full automation were another sign of progress, as were several legislative accomplishments.

On August 27, 1982, President Reagan signed P.L. 97-247, which made basic changes in the PTO fee structure and in the agency's operations. The law provides for increased "user fees" which will assure the PTO of adequate resources over the next decade without the need for increases in appropriations. P.L. 97-247 also made a number of changes which clarify and liberalize current requirements. (See Chapter 2 on Legislation.)

Another important piece of legislation was the Federal Courts Improvement Act, P.L. 97-164, which established a U.S. Court of Appeals for the Federal Circuit (CAFC). Other legislation included P.L. 97-366, which designates the Commissioner of Patents and Trademarks as Assistant Secretary and Commissioner of Patents and Trademarks.

Planning continued toward the goal of a fully-automated PTO by 1990. The Office centralized all automation activities under a newly-hired Admin-

istrator for Automation, who completed the master plan for PTO automation required by P.L. 96-517. According to the plan, delivered to Congress in December 1982, all trademark operations and one of the fifteen patent examining groups (Group 220) will be fully automated by the end of 1984. Pre-examination, post-examination, classification and management information will be automated as well. Planning began in 1982 to achieve these long-range automation goals, and the Office took a number of immediate steps to improve operations through automation. (See Chapter 4 on Automation.)

Before the new fee schedule went into effect October 1, 1982, filings rose to an all-time high. A total of 17,225 patent applications and 16,656 trademark applications were filed in September, about twice the customary monthly number for patents and three times the average monthly total for trademarks. These brought the yearly total to 124,800 applications for patents and 73,621 for trademarks.

A total of 65,152 patents were issued in FY 1982, with an average pendency time of 24.2 months between filing and disposal. In the trademark area, 43,630 marks were registered, with an average pendency time of 21.3 months.

In 1981 the Administration made the commitment to reduce the backlog of applications through Plan 18/87 for patents—disposing of patent applications within 18 months of filing by 1987—and Plan 3/13 for trademarks—issuing a first action within three months and final disposition within 13 months by 1985. To meet the 1982 portion of these plans, the PTO hired 235 new patent examiners and 20 new trademark examiners. Both plans remain on schedule.

The PTO began a new program for patent examiners' visits to industrial facilities where the technology in which they specialize is developed and used. U.S. industry has made the program possible by making facilities available and by contributing to an examiner education fund. A total of 55 examiners took part in the program during the year. Trademark examiners continued to attend trade shows and exhibitions relating to the technologies in which they examine.

In August, the Commissioner announced a five-point plan to improve PTO operations. It is directed toward:

(1) upgrading the physical environment in the PTO;
(2) improving internal communications;
(3) ensuring proper dress and demeanor by employees;
(4) improving communications with the public; and
(5) establishing a focal point for public inquiries and complaints.

As the year ended, progress was being made in all these areas, as well as others described in the following pages.

chapter one
FINANCIAL AFFAIRS

Operating Costs

Total operating costs for the PTO in FY 1982 (as determined by accrual accounting methods) were $125,836,000, an 11 percent increase over FY 1981 (without adjustment for inflation). Compensation and benefits totalling $90,265,000 comprised 72 percent of operating costs. Printing of patents and trademarks and other reproduction costs were $15,882,000, or 13 percent of operating costs. Other costs of $19,689,000 were 15 percent of the PTO's total operating costs. Figure 1 shows that patent processing in FY 1982 was about 71 percent of PTO operating costs, trademark processing 8 percent, and dissemination of patent and trademark information 21 percent. Table 1 gives the historical data on PTO operating costs*.

Appropriations

Total FY 1982 Congressional appropriations for the PTO rose to $125,335,000, an increase of $9,185,000 above the FY 1981 appropriations (see Table 2).

The actual obligations against this total budget authority were $124,230,000, an increase of $8,236,000 above the FY 1981 level of $115,994,000. The difference between the funds available and funds expended ($1,105,000) in 1982 represents fourth quarter obligations for contracts that were delayed until 1983.

The initial FY 1982 Congressional appropriation of $118,961,000 provided increased funding for trademark examination to begin to reduce pendency time to first action; trademark printing for publication of oppositions and printing of registrations; and automatic data processing to provide support for existing program systems and hardware.

This initial appropriation was increased by two supplemental appropriations totaling $6,374,000. The first supplemental of $3,874,000 provided for the Federal pay raise of October 1, 1981. The second supplemental appropriation of $2,500,000 was granted to provide for the hiring of 235 new patent examiners to help curb the growth in the patent backlog and to start decreasing the amount of time necessary to grant a patent to 18 months by 1987.

*All figures are included in the text. All tables are in the appendix at the end of the report.

FIGURE 1

PATENT AND TRADEMARK OFFICE
FY 1982 OPERATING COSTS
($125,836,000)

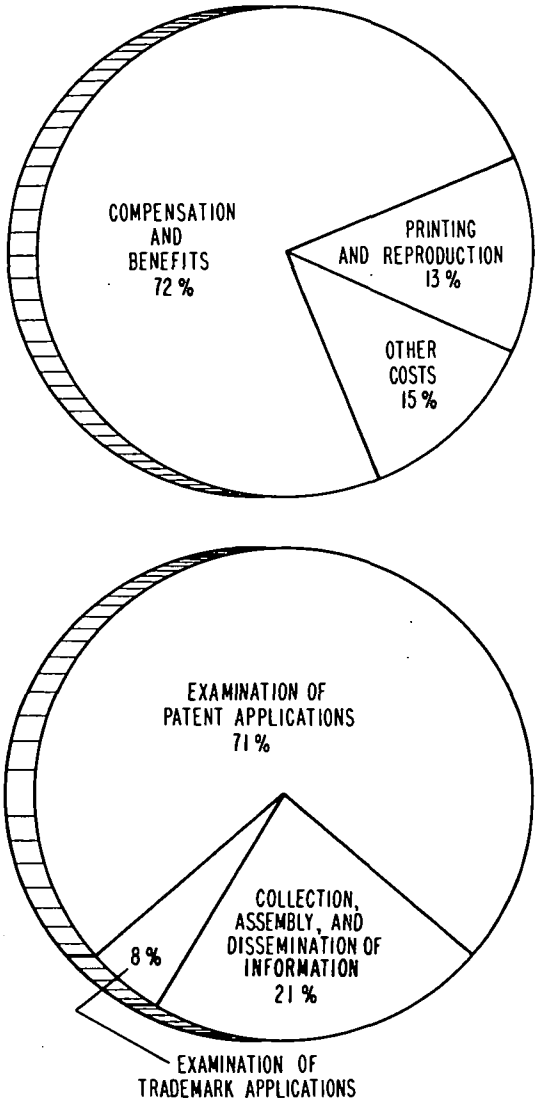


FIGURE 2

PATENT AND TRADEMARK OFFICE
FY 1982 INCOME FROM FEES
($28,535,000)

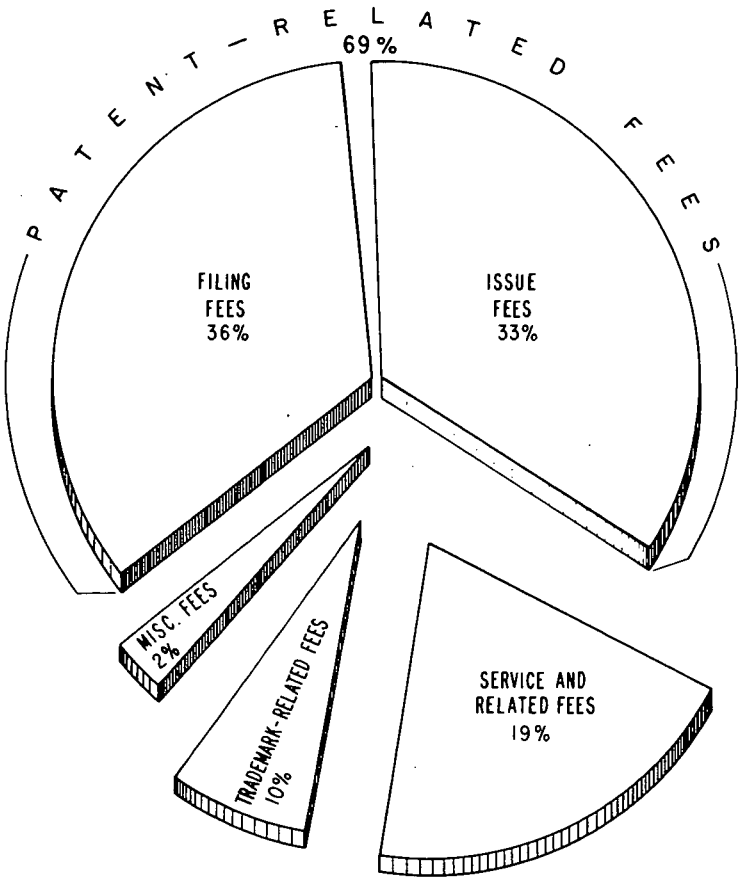
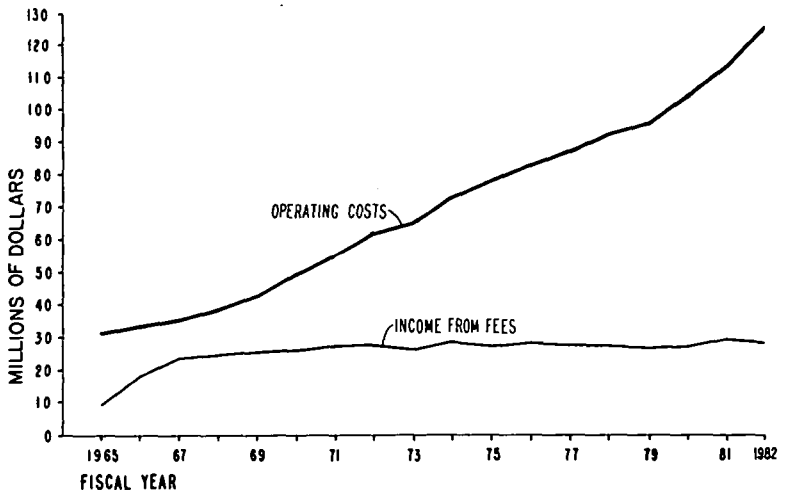


FIGURE 3
INCOME AND OPERATING COSTS
(1965-1982)



Authorized personnel staffing in the PTO increased in FY 1982. Total permanent positions numbered 3,036, an increase of 202 positions over the FY 1981 level of 2,834 positions (see Table 3 for end-of-year employment data).

Fee Income

During FY 1982, fees collected from users of PTO services were deposited into the general fund of the U.S. Treasury, and did not directly benefit the PTO. The fees received in FY 1982 totaled $28,535,000, or approximately 23 percent of the PTO operating costs. Table 4 contains details on PTO fees. Figure 2 shows that, in 1982, patent-related fees comprised 69 percent of total fees received, trademark-related fees 10 percent, service and related fees 19 percent, and miscellaneous fees 2 percent. Figure 3 illustrates PTO operating costs versus fees charged from 1965.

P.L. 96-517, enacted early in FY 1981, and amended by P.L. 97-247, signed into law on August 27, 1982, changed the fee structure which had been in effect since 1965. The increased fees under this law went into effect on October 1, 1982. Under this legislation fee income will be retained by the PTO, rather than being deposited in the general fund of the U.S. Treasury. (See Chapter 2 on Legislation.)

chapter two
LEGISLATION

The Patent and Trademark Office supports efforts to strengthen the patent and trademark systems through legislation. The Congress considered a number of significant legislative proposals this year.

P.L. 97-247

P.L. 97-247, enacted on August 27, 1982, made several changes to the patent and trademark laws. Most important, it provides for increased "user fees", which will assure the PTO of adequate resources over the next decade without the need for increases in appropriations. At the same time, it provides a 50 percent reduction in the new fees associated with patent applications filed by independent inventors, small businesses, and nonprofit organizations to ensure continued accessibility of the patent system to these entities. (See the Patent Fee Revision section in Chapter 5.)

This new law also makes a number of changes which clarify and liberalize current requirements. Provisions are made for automatic extensions of time, revival of applications which are unintentionally abandoned, and awarding a filing date to applications submitted without the required fee or oath. The law liberalizes the ability to correct inventorship in an application or patent and authorizes the Commissioner to make rules under which any paper will be considered filed in the PTO when it is deposited in the U.S. mail. Changes are made in trademark practice, deleting some requirements and clarifying others. Other changes were made to conform U.S. law to the Hague Convention by changing the requirement for legalization of certain foreign public documents.

Another significant aspect of this law is its provision, for the first time, for judicial enforcement of voluntary arbitration of patent validity and infringement disputes. This is expected to reduce the cost of resolving such disputes in the future, benefiting both the parties to the dispute and the public.

Federal Courts Improvement Act

The Federal Courts Improvement Act, P.L. 97-164, was enacted on April 2, 1982. This law established a U.S. Court of Appeals for the Federal Circuit (CAFC). The CAFC combines in a single court the Court of Claims and the Court of Customs and Patent Appeals. The new Court will decide appeals from the PTO which previously were heard by the Court of Customs and Patent Appeals and also will hear patent-related appeals from

all of the U.S. district courts. The PTO actively supported this legislation in the 97th Congress, arguing that creating a single authoritative tribunal to handle patent cases nationwide would contribute to a uniform standard of patentability.

Patent Term Restoration Act

Legislation was introduced in Congress to amend the patent law to provide an extension of the patent term for patented products, or methods, that are subject to Federal regulatory review before they are permitted to be introduced for commercial use. The extension would equal the regulatory review period up to a maximum of seven years. Although S. 255 was passed by the Senate on July 9, 1981, its counterpart, H.R. 1937, was the subject of prolonged hearings before several House subcommittees. The PTO strongly supported this legislation, testifying on behalf of the Administration that the legislation would restore full patent incentives to patent owners whose products and processes have been held back from the marketplace by Federal regulatory procedures. Extensively amended, the bill was reintroduced as H.R. 6444 on May 20, 1982. Despite several efforts to secure its passage, the bill died with the end of the 97th Congress. However, a provision extending the term of patents in certain situations was passed by Congress as part of H.R. 5238, the "Orphan Drug Act." The provision is contained in a new section 155 which was added to title 35, United States Code.

Federal Patent Policy

During 1982, Congress continued its consideration of legislation that would further change Federal patent policy. This legislation (S. 1657 and H.R. 4564) would permit any contractor to elect to retain title to inventions developed with Federal sponsorship. The Commissioner testified in support of this legislation, stating that the legislation will create a truly uniform patent policy, encourage businesses to invest in inventions resulting from Federal sponsorship, and relieve the Federal Government from the responsibility, burdens, and costs of seeking commercial uses for inventions made under Federal sponsorship. Neither of these bills was passed prior to the adjournment of the 97th Congress.

P.L. 97-296

H.R. 5154, a bill which would amend the Lanham Trademark Act to prohibit State regulations from requiring alteration of Federally registered trademarks, was introduced on December 9, 1981. The PTO testified in favor of the bill before the House Judiciary Committee. The bill was passed by Congress in September and became P.L. 97-296 with signature by the President on October 12, 1982.

P.L. 97-366

On October 25, 1982, the President signed into law H.R. 4441, which amends section 3 of title 35, United States Code, by designating the Commissioner of Patents and Trademarks as an Assistant Secretary of Commerce.

Employed Inventors' Rights

With the increasing adoption of state laws regarding the disposal of rights in inventions made by employed inventors, as well as the concerns regarding lagging innovation in the country, two bills were introduced during the 97th Congress to establish a uniform Federal policy on employed inventors' rights. Hearings were held on these measures, H.R. 4732 and H.R. 6635, by a subcommittee of the House Committee on the Judiciary, but no action was taken on either measure.

P.L. 97-256

P.L. 97-256, enacted on September 8, 1982, made technical and conforming changes in the patent and trademark laws. These changes were needed because of the passage of P.L. 96-517, but made no substantive changes in the patent and trademark laws.

chapter three
INTERNATIONAL COOPERATION

The Patent and Trademark Office pursues its responsibility to promote U.S. business interests in the international and the domestic arenas by working for effective patent and trademark protection throughout the world. Efforts in this area are directed toward the development of simpler, less expensive, and more effective means for U.S. nationals to secure and protect their industrial property rights.

Revision of the Paris Convention

Patents and trademarks are generally effective only within the borders of countries which issue the grant or the registration. To make it easier to obtain protection across international borders, 13 countries agreed almost a century ago to establish the Paris Convention for the Protection of Industrial Property, to which the United States has been a party since 1887. The original Paris Convention has been revised several times, and further revisions are being considered.

The PTO participated in the Third Session of the Diplomatic Conference for the Revision of the Paris Convention, which was held in Geneva, Switzerland, in two parts from October 4-30, and from November 23-27, 1982. The United States had previously reemphasized that it would not be party to any revised convention expressly authorizing compulsory exclusive licenses such as provided for in the text of Article 5A tentatively approved by the Conference at its Second Session in Nairobi, Kenya, held in September and October 1981. Through consultations prior to the Third Session, an informal agreement was reached that Article 5A would not be discussed officially, at least not at the beginning of the Third Session.

The major portion of the October session, therefore, was spent discussing trademark issues. The most contentious of these was the text of a proposed new Article 10*quater* dealing with geographic indications. While the United States basically opposed any amendment of the Paris Convention to strengthen the protection for geographical indications, it had indicated a willingness to join in such a proposal provided that it was prospective and that adequate safeguards were included. Although a great amount of time was spent discussing these issues, the participants were unable to reach agreement on all points regarding the proposed Article 10*quater*. The participants did, however, agree on an amendment to Article 6*ter* affording protection to official names of member countries.

At the same time that discussions were proceeding on trademark issues, the United States Delegation, headed by Ambassador Gerald J.

Mossinghoff, Commissioner of Patents and Trademarks, was making a concerted effort with key developing countries to find an acceptable alternative to the Nairobi version of Article 5A. By the fourth week of the Conference, a small informal group of developed and developing countries was convened to consider possible alternatives for the Nairobi text. A compromise proposal emerged from these deliberations, although no agreement could be reached due to the lack of time. In view of the importance of reaching agreement on this issue, the Plenary of the Conference decided to recess on October 29, and resume for the period of November 23-27, 1982.

Despite intense negotiations at the resumed session, the participants could not agree to adopt a compromise text of Article 5A. Nevertheless, hopes for a successful resolution of that issue remain high. A Fourth Session of the Diplomatic Conference has been called for in late 1983 or early 1984.

International Code of Conduct on the Transfer of Technology

The International Code of Conduct on the Transfer of Technology is an instrument being negotiated under the auspices of the United Nations Conference on Trade and Development (UNCTAD). The Code is intended to facilitate technology transfer agreements between countries by various means, such as discouraging certain restrictive business practices and enumerating responsibilities and obligations of the parties to transactions involving transfer of technology. During 1982, an Interim Committee established by the General Assembly of the United Nations met on three occasions to seek solutions to the problems which have stood in the way of a successful conclusion of the Code. The Patent and Trademark Office actively participated in these deliberations. Regrettably, no progress could be made in resolving the difficulties which have plagued negotiations of this Code all along and which had come to a head at the fourth session of the U.N. Conference in 1981. Accordingly, the U.N. Conference will have to attempt to resolve the disagreements at a fifth session, to be held in the fall of 1983.

Training Programs for Developing Countries

The PTO continued to provide training in the industrial property field to nationals from a number of developing countries. Two representatives of the People's Republic of China spent two months studying the U.S. trademark system. A national of the Republic of Korea participated in a four month training course, which included the instruction the PTO offers to its new patent examiners. Training was also provided in the area of trademarks for a Jamaican national for a six week period. Shorter periods of training were provided for other nationals from Thailand and Korea.

Protection of Intellectual Property in Asia

The Patent and Trademark Office, in cooperation with the Departments of Commerce and State, is actively encouraging Asian countries to pro-

vide greater protection for intellectual property. These efforts have been directed particularly toward the strengthening of industrial property protection in Korea and the development of a new patent law by the People's Republic of China. Meetings have been held to focus attention of Korean officials on problems of U.S. industry in the areas of chemical patent protection, confidentiality under the pesticide regulations, and trademarks. In conjunction with the World Intellectual Property Organization (WIPO), the PTO has provided assistance to the People's Republic of China through training provided for their nationals, as well as through lectures on trademarks by the Commissioner at a WIPO-sponsored seminar in Beijing.

Other International Activities

The Patent and Trademark Office, in cooperation with the Department of State and other components of the Department of Commerce:

- continued participation in implementation of the Nice Agreement on International Trademark Classification;
- continued assisting in a review of the U.N. Convention on the Law of the Sea;
- adhered to the International Convention for the Protection of New Varieties of Plants (UPOV Convention), effective November 8, 1981; and
- continued participation in the WIPO Permanent Committee on Patent Information.

chapter four
AUTOMATION

Automation

Two events significantly influenced the Patent and Trademark Office's automation planning in FY 1982: Section 9 of P.L. 96-517 required the development of a complete plan for automating the PTO, and management established the improvement of PTO operations through aggressive use of automation as one of its key objectives.

Consequently, actions directed at developing an automation master plan and improving existing automated systems dominated much of the attention during this year.

Automation Master Plan

A preliminary plan was drafted in the fall of 1981 and an assessment of the technology that would affect the PTO automation plan was completed in the spring of 1982. Commissioner Mossinghoff appointed a special advisory committee, comprised of automation experts from other government agencies, to review and evaluate the early findings.

Over 600 copies of the draft plan were circulated to individuals, commercial organizations, and interested professional associations, and a public hearing was held to provide a forum for comment and reaction to the plan. The participation and recommendations of these groups and individuals contributed to subsequent planning activities.

The plan, consisting of three volumes, was completed in September 1982, concurrent with its presentation to and review by the Department of Commerce, the General Services Administration, and the Office of Management and Budget.

The master plan describes the PTO goal to automate operations by 1990. A key concept inherent in this goal is the elimination of paper search files and related paper handling. Applicants will continue to communicate with the PTO in the medium of their choice, but submission of applications in computer-processible media, ultimately to include computer-to-computer connection, will be encouraged. Incoming information will be converted to computer-processible form upon receipt in the PTO and, thereafter, it will be handled electronically. Data bases of patents and trademarks will be created to enable full text search and/or retrieval on the basis of the U.S. classification and other indexing systems. PTO actions will be prepared on the same electronic workstations used for application review and searching. Patent and trademark information will be extracted

from the data bases and formatted for processing and photocomposition equipment in preparation for printing.

Automation will be accomplished in three stages. During the first stage, one patent group (Group 220, which deals with all areas of technology) will be automated to provide a testbed for evaluating the initial system architecture and methods of operation. Data bases will be created, and initial pre-examination, examination, and post-examination functions will be started on the system. Support will be provided for patent classification activities. All trademark functions will be automated, including public search. In the second stage, the other patent groups and office functions will be automated. This will complete the conversion to paperless operations, gain the advantages of full file integrity, and obtain the benefits of less costly printing. The final stage will expand dissemination and access capabilities and make possible direct, world-wide access to patent and trademark information.

To carry out automation activities, in FY 1982 the PTO centralized management of the automation program and recruited an Administrator for Automation. A coordinating committee, chaired by the Commissioner, was formed to assure continuing top management involvement and guidance as the master plan is implemented. The PTO contracted with the MITRE Corporation to provide systems engineering services needed to complete system specifications and to integrate the components of the system.

The master plan integrates the activities leading to implementation of the full automation concept with the current automated information system development, computer operations, and other supporting activities. It provides for a transition from the current to the future system operations, building on systems work already accomplished and under development.

PALM 3

Implementation of the final phases of the PALM 3 (Patent Application Locator and Monitoring) System continued in FY 1982. PALM 3 was expanded to automate a clerical backlog report for patent examining operations and a similar report for pre-examination activities. New on-line transactions were created to assist with the implementation of the revised and expanded fee schedule contained in P.L. 97-247. These transactions also help to track claims to small entity status and print notices of allowance.

TRAM 2

User requirements were completed for most of the TRAM 2 (Trademark Applications Monitoring) System. The initial phase of TRAM 2 is designed to consolidate a number of independent manual and automated systems and to parallel the PALM 3 system in providing the trademark operation with the ability to obtain information needed for application processing and management control. The information will be contained in a single data base which can be queried and updated on-line.

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Office Automation

A significant accomplishment in office automation was completed in FY 1982 with the implementation of a word processing network throughout the fifteen patent examining groups. This action satisfied the management objective of eliminating hand-written examiner opinions. Through the use of 75 workstations and over 350 detailed legal and technical form paragraphs, more than 200,000 letters are produced annually.

Computer Systems Support

The PTO Burroughs B6700 computer system was upgraded to increase capacity and enhance performance. The system is now configured with three main processors, two input-output processors, two data communications processors, main memory capacity of over six million characters, disk storage capacity of over five billion characters, eight tape drives, and three printers. The additional equipment significantly reduced system response time, as illustrated in Figure 4. Prior to installation, system response time averaged 6-10 seconds per transaction. Since installation, system response time averages 3-4 seconds per transaction. Response improvements were achieved despite a substantial transaction volume increase of almost 40 percent. Availability of the system remained about the same, as shown in Figure 4, except for a period of instability following the new equipment installation.

Search Experiments

Studies were undertaken during FY 1982 to evaluate alternative methods of conducting automated patent searches by using different commercial data bases and systems. Over 300 patent examiners were given on-line access to these systems and about two dozen standard, special purpose and graphic terminals were placed throughout the Office. The systems included Derwent, IFI/Plenum, Pergamon, Chemical Abstract Services, DARC and Mead Data Central EXPAT. The studies focused on the questions: Is the full text necessary for search or can a surrogate, such as an abstract, be used with the same effect? Would a thesaurus be necessary or useful? What system features are most useful to examiners? The results from these studies will be used in the preparation of specifications for the long-range automated PTO system.

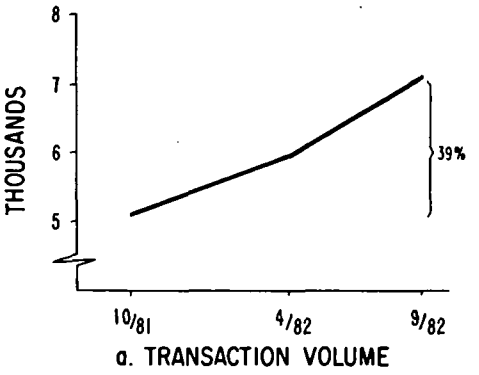
Technology Assessment

The Office of Technology Assessment and Forecast assesses technology by using patent information which is available in computer data bases. During FY 1982 three major reports and 269 custom technology reports were prepared for public and private organizations, an increase of 42 percent over the previous year. These computer-generated reports are provided to the public on a cost-reimbursable basis through the National Technical Information Service (NTIS). The major reports were:

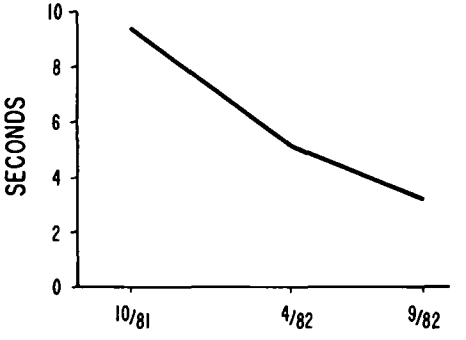
Biotechnology, which focused on six areas related to enzymes and microorganisms and their use in the synthesis of certain products, their preparation, and their modification;

FIGURE 4

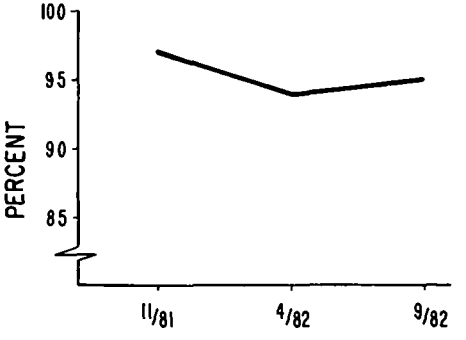
PERFORMANCE IMPROVEMENTS ACHIEVED IN PTO CENTRAL COMPUTER OPERATION



a. TRANSACTION VOLUME



b. RESPONSE TIME



c. AVAILABILITY

The *OTAF Tenth Report*, which reviewed the U.S. patent activity of some of the largest European and Japanese multinational corporations, analyzed changing standards for computer software patentability, and demonstrated how the patent files would be used in research and historical review, and;

Industrial Robots; A Survey of Foreign and Domestic U.S. Patents, which analyzed 212 U.S. patents pertaining to robotics.

chapter five
PATENTS

Patent Applications

The number of patent applications filed in FY 1982 set an all-time record of 124,800 filings (excluding international filings in the U.S. Patent and Trademark Office as a receiving authority under the Patent Cooperation Treaty). This number represents an increase of 10,090 applications or 8.8 percent over FY 1981, which itself was a record year. Utility, plant, and reissue applications accounted for 116,731 of these filings. The other 8,069 applications filed were for design patents, which showed a 12 percent increase in filings from FY 1981. Figure 5 illustrates historical trends in patent applications and patents issued. Figure 6 shows that the percentage of applications submitted by residents of foreign countries continues to increase and is now over 41 percent of all U.S. filings, up from 40 percent in FY 1981.

Patents Issued

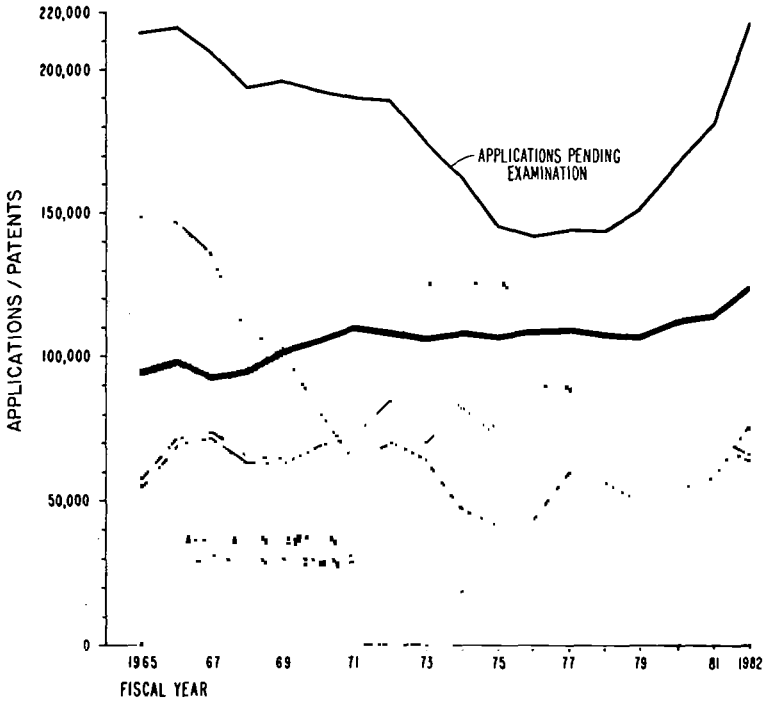
The PTO issued 65,152 patents in FY 1982, an 8 percent decrease from the previous year. Utility, plant and reissue patents accounted for 59,853 of this total, with 5,299 design patents being issued. The number of patents issued to residents of foreign countries, as shown in Figure 6, continued to increase and was 40 percent of all patents issued, compared with 39 percent of the patents issued in FY 1981.

Patent Pendency

The time to process a patent application from filing to issue or abandonment is called the "patent pendency time." The average patent pendency time rose during FY 1982 to 24.2 months for utility, plant and reissue patents (from 22.4 months of the previous year). The average pendency time for design patents was 27.5 months.

The inventory of applications in the examining corps increased by 25,983 for nondesign applications. The total Office inventory at the end of FY 1982 was 247,984 applications, up from 221,538 in FY 1981. The average time that it took for an applicant to get a first response from the PTO on the merits of an application went from 11.6 months to 13.9 months. Figure 7 is a flow chart showing the stages, and the FY 1982 pendency time for each stage, in the patent examining process. Figure 8 illustrates the trends in pendency time over the past several years. (Also see Tables 5 through 9.)

FIGURE 5
PATENT APPLICATIONS FILED, PENDING AND ISSUED (1965-1982)



Under Plan 18/87 it is expected that the PTO will dispose of more cases than it receives in FY 1984, and that pendency time will start to diminish in FY 1985.

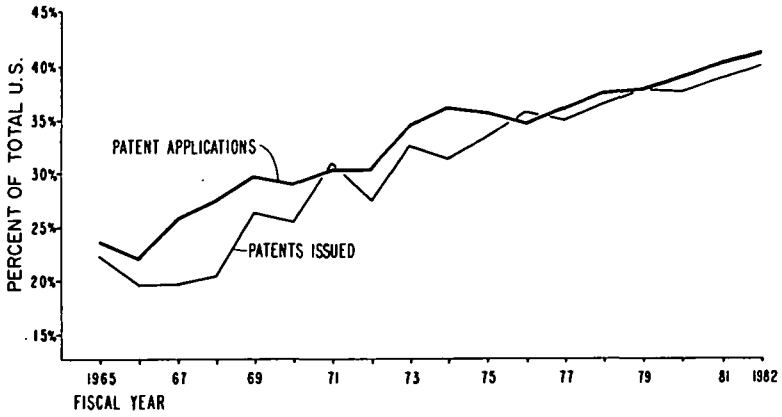
Patent Examiners

In support of the PTO's goal of reducing pendency to 18 months by FY 1987, 235 patent examiners were hired during FY 1982. With 51 attritions from the patent examining corps, the number of examining professionals (excluding supervisors) totaled 1,072 at the end of FY 1982.

This recruitment effort involved visiting 191 colleges; conducting about 1,500 interviews; placing advertisements in a number of magazines, college placement manuals, and college newspapers; and conducting an open house to attract qualified candidates. Of the 235 examiners hired, 201 were engineers with an overall college grade-point average of 2.93, on a scale

FIGURE 6

U.S. PATENT APPLICATIONS FROM, AND PATENTS ISSUED TO, RESIDENTS OF FOREIGN COUNTRIES (1965-1982)



of 4.0. Minorities, women and handicapped represented almost 35 percent of the total new hires. Overall, the average entry grade was a GS-7.

It is expected that patent examiners will produce higher quality patents for inventors and the industries they serve as the result of a new program providing for examiners' visits to industrial facilities where the technology in which they specialize is developed and used.

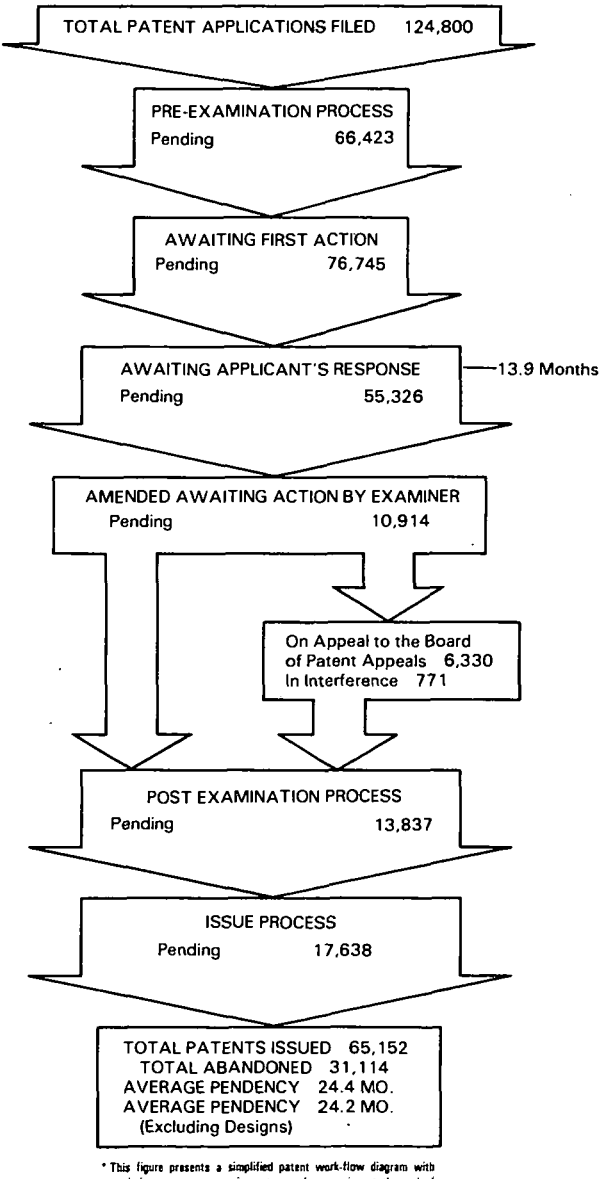
Under the program, U.S. industry is making facilities available and contributing to an examiner education fund. A total of 55 examiners took part in the program during FY 1982. Plans call for each examiner to make at least one corporate tour over a three-year period to both large and small technical facilities in the same geographical area. To avoid the possibility that contributors might influence PTO decisions on specific applications, supervisors assigning examiners to visit specific facilities and the examiners making the site visits do not know the identities of companies that have made contributions.

Reexamination

P.L. 96-517, enacted early in FY 1981, allows a patent owner, or his/her competitor, to request the PTO to "reexamine" an issued U.S. patent and rule on whether it should be amended or canceled because of evidence of earlier patents or printed publications cited as the basis for reexamination. This procedure is faster and considerably less expensive than resolution of patent validity issues in litigation. The procedure also permits a review of the patent and the cited art by a patent examiner who is familiar with the

FIGURE 7

PATENT EXAMINING ACTIVITIES



* This figure presents a simplified patent work-flow diagram with statistics on cases at various stages of processing at the end of FY 1982.

FIGURE 8
PENDENCY TIME OF PATENT APPLICATIONS (1965-1982)

technology in question. This should benefit the courts in their handling of patent cases.

During FY 1982, the PTO received 187 reexamination requests, of which 68 were filed by patent owners. Of the 187 cases, 37 were in litigation and 3 of the requests had been court ordered. A substantial new question of patentability has been found, and reexamination ordered in 163 cases. The PTO denied reexamination in 39 cases. (See Table 10.)

Board of Appeals

The Board of Appeals hears appeals from adverse decisions of examiners on patent applications (see Table 11). The Board received 3,506 appeals during the year and disposed of 3,693 appeals, so that the number of appeals pending decreased by 187 to 4,781. At the end of FY 1982 the pendency time for an appeal at the Board of Appeals averaged about 16 months starting from the time the Board obtained jurisdiction over the appeal. The Board of Appeals obtains jurisdiction of an appealed application when it is forwarded to the Board by the examining group. This occurs approximately six months after the filing of the notice of appeal because of the time periods involved in filing the brief and the examiner's answer.

Board of Patent Interferences

A patent "interference" is a proceeding in the PTO to determine priority of inventorship between two or more applicants, or an applicant and

a patentee, who are claiming the same invention. The determination of priority is made by the PTO's Board of Patent Interferences, after a final hearing, on the basis of evidence submitted by the parties. Many interferences are terminated before reaching the final hearing stage, either because they are voluntarily settled or for other reasons. At the end of FY 1982, 76 cases had reached the final stage and were awaiting a decision by the Board. In FY 1982 the Board rendered decisions on priority after final hearing in 83 cases, compared to 67 in FY 1981.

During FY 1982 the Board reduced the delay between the final hearing and the decision by initiating the practice of setting an interference for final hearing only when it is about to be taken up for decision. As a result of this new procedure and the increased number of decisions in FY 1982, a decision is now issued within 90 days (and often within 60 days) after the final hearing in a case, and the average time from the filing of the reply brief to the issuance of the decision is slightly more than 16 months.

Reissue and Protested Applications

During FY 1982, 486 reissue applications were filed, which represents a 9.7 percent decrease from the filings of the previous year.

Protests were filed against 47 pending patent applications. Protests filed in reissue applications made up 72 percent of the total protests.

Effective July 1, 1982, the rules of practice relating to reissue and protested applications were amended (1) to eliminate consideration of the so-called "no defect" reissue applications, (2) to limit the participation by protestors during the examination of patent applications, and (3) to clarify the interface between patent application examination and patent reexamination in certain areas. The changes were intended to reduce applicants' prosecution costs and to redirect PTO resources, previously devoted to consideration of the so-called "no defect" reissue applications and extensive protestor participation during application examination, toward reduction of the backlog of pending patent applications.

Duty of Disclosure

During FY 1982, 141 applications were referred to the Office of the Assistant Commissioner for Patents for investigation of possible violations of the duty of applicants to disclose material information to the PTO. During the year, 147 such applications were disposed of, with three stricken from the files. Forty-one applications were not stricken and 103 were abandoned by the applicant before the duty-of-disclosure question had been resolved.

Effective July 1, 1982, the rule relating to duty of disclosure was amended to provide that the claims in an application be rejected, rather than striking the application, if upon examination it is found that the applicant is not "entitled to a patent under the law" because of fraud or a violation of the duty of disclosure. Under the amended rule, applicants are afforded an opportunity to appeal the rejection to the Board of Appeals, an avenue which was not open when such applications were stricken from the files.

Accelerated Examination

Patent applications for inventions that enhance the quality of the environment or contribute to energy conservation or development may be accorded a "special" status which accelerates the examination process. The PTO accorded "special" status to 25 environment-related and 126 energy-related applications in the past fiscal year.

Quality Review

Since March 26, 1982, the Office of Quality Review has reported directly to the Deputy Commissioner of Patents and Trademarks.

The quality review program, which has been in effect since 1974, was revised effective July 1. The expanded program's guidelines apply to all applications sampled after June 30, as well as to all applications sampled prior to July 1, but not officially reviewed prior to that date.

The new program provides for the return, by one reviewer, to the examining group of any sampled application in which a question of patentability is raised; it is no longer limited to a return, by two reviewers, to consider whether claims are clearly unpatentable.

The classification groups are no longer involved in the review process; questions concerning the desirability of further searching can now be raised initially by the patentability reviewer.

Ad hoc members of the Board of Appeals are no longer involved in the review process; final decisions concerning questions of patentability are now the responsibility of the group directors.

The expanded program is responsible for conducting patentability reviews on a 4 percent sample of all allowed utility applications; for screening all reissue applications for conformance with current practices; for conducting patentability reviews on a 15 percent sample of all allowed reissue applications; and for conducting patentability reviews on a 15 percent sample of those patents in which a reexamination certificate is to be issued.

The objectives of the program are to:

- prevent the allowance of unpatentable applications;
- improve public confidence in the certainty and reliability of issued patents;
- detect trends away from normal examining practice;
- feed back information to the patent examining corps;
- emphasize to the patent examining corps the importance of quality;
- compile data on the "quality" of the patent examination process.

A statistical overview of the results of the findings under the 1974 program to its termination on June 30, 1982, shows that 18,639 applications were subjected to patentability reviews. Of these, 808 (4.3 percent) were returned to the examining groups as having one or more clearly unpatentable claims. Prosecution was reopened in 718 (89 percent) of the 808 applications returned to the examiners. In addition, 1,380 of the applications reviewed (7.4 percent) were returned to the examining groups

for additional searching. Prosecution was reopened in 88 (6.4 percent) of the applications returned for additional searching. Thus, prosecution was reopened in a total of 806 applications in the old program from its implementation in April of 1974 through its termination in June of 1982.

During the first four months of operation of the expanded Quality Review program, 872 applications were reviewed. Forty-seven (5 percent) of these applications were returned to the examiners with questions of patentability. Prosecution was reopened in 38 (81 percent) of the 47 applications returned with questions of patentability.

Quality Review statistical findings continue to indicate that the quality of the patents allowed by examiners has been improving since the 1970's. In fact, the percentage of clearly unpatentable cases dropped from 7 percent in FY 1975 to 6 percent in FY 1976, leveled to 4 percent in FY 1977 through FY 1980, dropped to 3 percent in FY 1981, but returned to the 4 percent level and remained there through the end of the 1974 program (June 30, 1982). The statistics of the Quality Review program provide useful feedback to management on the reliability of patents issued and thus supplement the normal quality review performed by the immediate supervisors of patent examiners. These supervisors, of course, play a key role in monitoring patent quality.

Patent Cooperation Treaty Functions

The Office entered its fifth year as a receiving office under the Patent Cooperation Treaty (PCT). The PCT is an international agreement between 32 member countries which permits an inventor or a business to file an international application in the PTO as a receiving office with the same effect as an application in as many member countries of the PCT as are designated. In FY 1982 the PTO received 1,867 international applications, an increase of 3.8 percent over the previous year. Under the PCT, the PTO also serves as an "International Searching Authority" for international applications filed in the United States and Brazil. In this capacity the PTO completed 1,705 international search reports during FY 1982. The PTO also received notification that it had been "designated" in 2,644 international applications filed in other PCT receiving offices around the world. An extensive computer monitoring system was established to track the various action dates for the receiving office, International Searching Authority and designated office functions.

Patent Fee Revision

During FY 1982, a major revamping of the rules was accomplished to establish procedures and fees to comply with new statutory requirements relating to "user fees" (see Chapter 2 on Legislation). P.L. 96-517 provided that, by October 1, 1982, fees for processing patent applications be set to recover a certain percentage of the estimated average cost to the Office of such processing. This law also required that fees be set for maintaining all patents in force which are filed on or after December 12, 1980,

other than design patents. The maintenance fees also are set to recover a certain percentage of the estimated cost to the Office of processing patent applications other than design applications.

P.L. 97-247 established a number of statutory fees which the Commissioner is required to charge. Among the more significant of these are fees for filing, issuing and maintaining a patent in force. In addition, the law continued the Commissioner's present authority to establish fees for all other processing, services or materials related to patents which are not statutory fees. Under the law, there is a reduction by 50 percent of the statutory fees paid by independent inventors, small business concerns, and nonprofit organizations, who meet the established criteria.

P.L. 97-247 and its implementing rules now provide for charging fees for various types of petitions previously not requiring fees. Among these are extensions of time. Additionally, there are two different fees for filing petitions with different standards to revive abandoned patent applications. The same two fees also apply to petitions to accept the delayed payment of the fee for issuing a patent. One standard relates to the situation where the delay resulting in the abandonment, or the delay in payment of the issue fee, was unavoidable. The other occurs where the abandonment or the failure to pay the issue fee was unintentional.

Patent Search File Integrity

The completeness of the patent search file is critical to the reliability of an issued patent. Between 1978 and 1981, under the file integrity program, more than three million U.S. patents in the most active subclasses were reviewed and the accuracy of the associated computer record improved. During FY 1982, the PTO reviewed 865,000 search file documents, including U.S. and foreign patents and nonpatent literature. Approximately 33,000 patent copies were added to the file in FY 1982 to replace missing or mutilated documents.

The PTO initiated the model search room program as another way to review search file integrity. Under this program, all the references in six examiner search rooms will be reviewed for completeness, and the accuracy of the computer record will be improved. In FY 1982 three search rooms were reviewed completely. To date four search rooms have been reviewed; two remain to be completed. The search rooms chosen were two each from the electrical, chemical and mechanical art groups. When the model search room reviews are completed, those rooms will be used for further detailed studies relating to file content, use, and maintenance. In some of the search rooms, controls will be imposed to limit degradation of the integrity of the files, and the effectiveness of those controls will be evaluated.

Reclassification

Selected portions of the patent search file are reviewed periodically to determine the need for new classifications which better correspond to the state of technology. These ongoing reclassification programs constitute an

analysis of all patents in a given technology. The PTO then restructures the classification system for the new technology to increase the access to and the reliability of the patent search file. In FY 1982 an additional program was initiated to reduce substantially the number of undefined subject matter breakdowns existing in the classification system. This program will improve the quality of document placement in these subclasses, make them available to the public via the Public Search Room, and provide for a smoother transition to an automated search file.

The FY 1982 reclassification programs established 4,667 new subclasses and involved approximately 520,500 U.S. and foreign patents. See Table 16 for details. While the total number of patents reclassified during FY 1982 was approximately 5.5 percent more than the previous year, the total number of original patents classified decreased by approximately 5 percent during the same period. The number of original patents classified is the traditional measure of reclassification activity; therefore, the FY 1982 figures indicate a lower level of reclassification effort when compared to the previous year. This lower level of activity is primarily due to support-cost increases and funding and staffing decisions.

Patent Depository Library Program

The Medical University of South Carolina Library in Charleston began acquisition of a collection of U.S. patents in numerical order and was designated the 38th Patent Depository Library.

Since 1977, 16 libraries have joined the program. Figure 9 lists the 38 Patent Depository Libraries which bring collections of U.S. patents to within one hour of commuting time to 42 percent of the total population of the United States.

A list giving the location of these libraries and a point of contact for each is published as a continuing notice in the *Official Gazette* to promote public awareness of the Patent Depository Libraries.

In April 1982, the system known as CASSIS (Classification and Search Support Information System) became operational with 36 Patent Depository Libraries participating, extending to users of patent collections in 26 states the information resources previously available only in the PTO Public Search Room. Through CASSIS the PTO is providing to the participating libraries free and unlimited direct on-line access to its various classification data bases. CASSIS permits users to obtain lists of patents assigned given classifications, obtain original and cross-reference classifications of given patents, view the structured titles of classifications, and search for key words in those classifications.

Official training on the use of CASSIS was provided to the 44 librarians attending the Fifth Patent Depository Library Conference held by the PTO at the end of March 1982.

In the 25 weeks of the availability of the system, from mid-April through September 1982, even in view of learning time required, usage of CASSIS was high and steadily increasing. During this initial period of operation,

FIGURE 9

PUBLIC PATENT DEPOSITORY LIBRARIES

ALABAMA
Birmingham Public Library

ARIZONA
Tempe—Science Library
(Arizona State University)

CALIFORNIA
Los Angeles Public Library
Sacramento—California State Library
Sunnyvale—Patent Information
Clearinghouse

COLORADO
Denver Public Library

DELAWARE
Newark—University of Delaware
Library

GEORGIA
Atlanta—Price Gilbert Memorial
Library (Georgia Institute
of Technology)

ILLINOIS
Chicago Public Library

LOUISIANA
Baton Rouge—Troy H. Middleton
Library (Louisiana State Univ.)

MASSACHUSETTS
Boston Public Library

MICHIGAN
Detroit Public Library

MINNESOTA
Minneapolis Public Library and
Information Center

MISSOURI
Kansas City—Linda Hall Library
St. Louis Public Library

NEBRASKA
Lincoln—Engineering Library
(University of Nebraska—Lincoln)

NEW HAMPSHIRE
Durham—University of New Hampshire Library

NEW JERSEY
Newark Public Library

NEW YORK
Albany—N.Y. State Library
Buffalo & Erie County Public Library
New York Public Library
(The Research Libraries)

NORTH CAROLINA
Raleigh—D.H. Hill Library
(N.C. State University)

OHIO
Cincinnati & Hamilton County
Public Library
Cleveland Public Library
Columbus—Ohio State University
Libraries
Toledo/Lucas County Public Library

OKLAHOMA
Stillwater—Oklahoma State
University Library

PENNSYLVANIA
Philadelphia—Franklin Institute
Library
Pittsburgh—Carnegie Library
University Park—Pattee Library
(Pennsylvania State University)

RHODE ISLAND
Providence Public Library

*SOUTH CAROLINA
Charleston-Medical University
of South Carolina Library

TENNESSEE
Memphis & Shelby County Public Library

TEXAS
Dallas Public Library
Houston—The Fondren Library
(Rice University)

WASHINGTON
Seattle—Engineering Library
(University of Washington)

WISCONSIN
Madison—Kurt F. Wendt Engineering
Library (University of Wisconsin)
Milwaukee Public Library

* New patent depository libraries added in FY 1982.

46,866 inquiries were addressed to the system, averaging 1,874 queries per week.

Distribution of Computer Patent Data Bases

The PTO supports distribution of computer-readable patent data bases to the public through an agreement with the National Technical Information Service (NTIS). The data bases have been expanded and now include:

- Current patent full-text files produced weekly;
- Current patent bibliographic files produced weekly;
- Retrospective patent full-text and bibliographic files for patents issued from August 1970 through December 1980;
- Patent classification file containing patent number, class and subclass information on all U.S. patents;
- Patent technology assessment and forecast file for patents issued from January 1963;
- Company name file for patents issued from January 1969;
- Manual of Classification file for all classes and subclasses in the U.S. classification system;
- Index to the Manual of Classification;
- U.S. Classification/SIC Concordance;
- U.S. Classification/IPC Concordance;
- Inventor name file for patents issued from January 1975;
- Patent title file for patents issued from January 1969;
- Roster of attorneys and agents registered to practice before the U.S. Patent and Trademark Office;
- Foreign patent classification file for foreign patents added to the search file from January 1979;
- Index term files for Class 364, Subclasses 200 and 900.

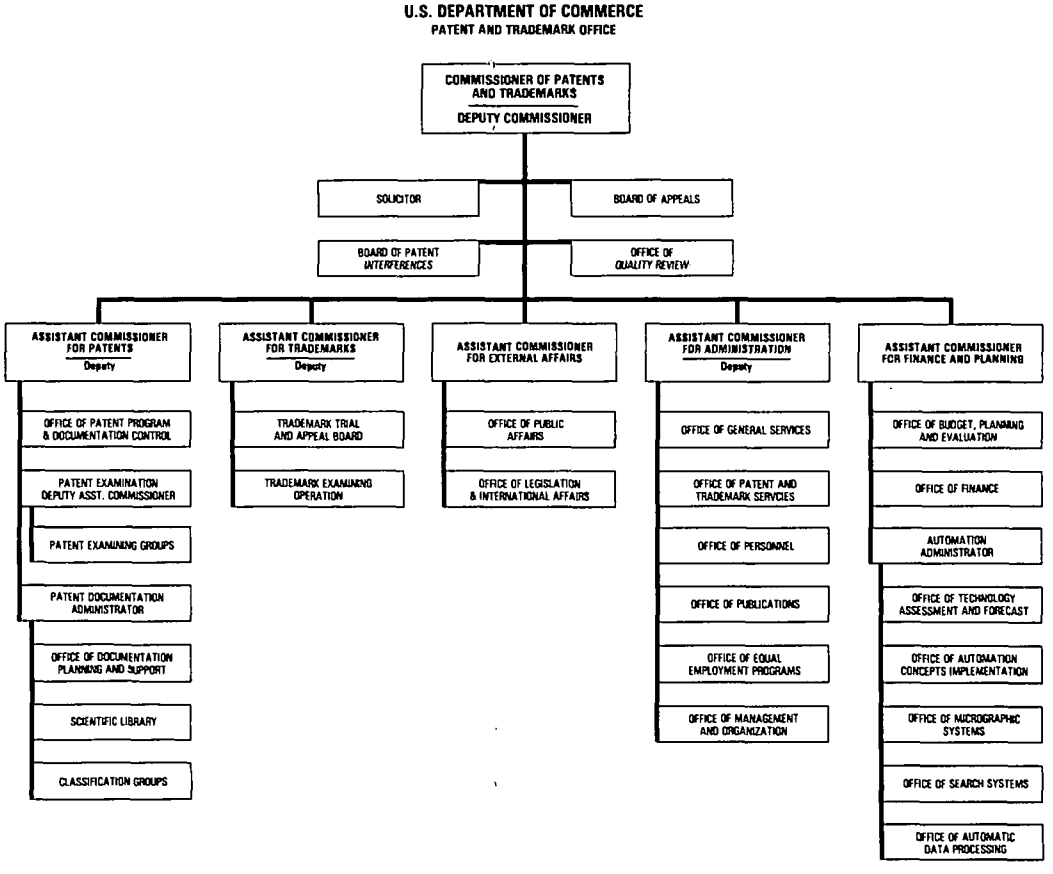
The public may acquire copies of these files directly from NTIS. The address is:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22151

Scientific Library Activities

The Scientific Library provides scientific and technical information and documents to the examining corps and other PTO personnel; selects and acquires literature to maintain and enhance the value of the 120,000 volume collection; performs on-line searches among numerous commercially available data bases; and translates foreign language patents, technical articles and other documents. The library maintains an extensive foreign patent collection and provides copies of these patents to Office staff and public users on demand.

In FY 1982 the library purchased approximately 3,000 books and 1,600 journal subscriptions. Thirty thousand journal issues were received, 18,000 of


U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
COMMISSIONER OF PATENTS AND TRADEMARKS
DEPUTY COMMISSIONER
SOLICITOR
BOARD OF APPEALS
BOARD OF PATENT INTERFERENCES
OFFICE OF QUALITY REVIEW
ASSISTANT COMMISSIONER FOR PATENTS
Deputy
OFFICE OF PATENT PROGRAM & DOCUMENTATION CONTROL
PATENT EXAMINATION DEPUTY ASST. COMMISSIONER
PATENT EXAMINING GROUPS
PATENT DOCUMENTATION ADMINISTRATOR
OFFICE OF DOCUMENTATION PLANNING AND SUPPORT
SCIENTIFIC LIBRARY
CLASSIFICATION GROUPS
ASSISTANT COMMISSIONER FOR TRADEMARKS
Deputy
TRADEMARK TRIAL AND APPEAL BOARD
TRADEMARK EXAMINING OPERATION
ASSISTANT COMMISSIONER FOR EXTERNAL AFFAIRS
OFFICE OF PUBLIC AFFAIRS
OFFICE OF LEGISLATION & INTERNATIONAL AFFAIRS
ASSISTANT COMMISSIONER FOR ADMINISTRATION
Deputy
OFFICE OF GENERAL SERVICES
OFFICE OF PATENT AND TRADEMARK SERVICES
OFFICE OF PERSONNEL
OFFICE OF PUBLICATIONS
OFFICE OF EQUAL EMPLOYMENT PROGRAMS
OFFICE OF MANAGEMENT AND ORGANIZATION
ASSISTANT COMMISSIONER FOR FINANCE AND PLANNING
OFFICE OF BUDGET, PLANNING AND EVALUATION
OFFICE OF FINANCE
AUTOMATION ADMINISTRATOR
OFFICE OF TECHNOLOGY ASSESSMENT AND FORECAST
OFFICE OF AUTOMATION CONCEPTS IMPLEMENTATION
OFFICE OF MICROGRAPHIC SYSTEMS
OFFICE OF SEARCH SYSTEMS
OFFICE OF AUTOMATIC DATA PROCESSING

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which were routed among the various Office locations. Four thousand pages of foreign material were translated.

In the foreign patent area 900,000 documents and 4,500 reels of microfilm were received and added to the total library collection of 10,000,000 foreign patent documents. From this collection 21,000 copies of foreign patent documents were made upon request.

The Reference Section circulated approximately 5,000 documents, either from the library's collections or from other libraries in an inter-library loan agreement and loaned 1,500 documents from the PTO collections to other libraries.

National Inventors Day

The PTO celebrated the Tenth Annual National Inventors Day with the induction of five individuals into the National Inventors Hall of Fame on February 8. They were:

- Henry Ford, born in Wayne County, Mich., honored posthumously for his invention "Transmission Mechanism," Patent No. 1,005,186;
- Jack S. Kilby, born in Jefferson City, Mo., honored for his invention "Miniaturized Electronic Circuits," Patent No. 3,138,743;
- Ernest O. Lawrence, born in Canton, S.D., honored posthumously for his invention "Method and Apparatus for the Acceleration of Ions," Patent No. 1,948,384;
- Ottmar Mergenthaler, born in Hachtel, Germany, honored posthumously for his inventions "Machine for Producing Printing Bars," Patent No. 317,828, and "Machine for Producing Linotypes, Type-Matrices, etc.," Patent No. 436,532;
- Max Tishler, born in Boston, Mass., honored for his invention involving synthesizing Riboflavin, Patent No. 2,261,608, and "2-Sulphanilamido-Quinoxaline," Patent No. 2,404,199.

The National Inventors Hall of Fame, located at the PTO offices in Crystal City, is cosponsored by the PTO and the National Council of Patent Law Associations.

chapter six
TRADEMARKS

Trademark Applications

Applications to register trademarks soared to a record 73,621 filings in FY 1982. This was a 33 percent increase over the 1981 total. Part of the increase was a one-time surge in filings caused by applicants rushing to file before the new trademark fees took effect on October 1, 1982. A substantial portion of the increase, however, was a continuation of the general upward trend of trademark filings that began in 1975. Even during the earlier part of 1982, before it became apparent that fees would be increased, the filings ran 10 percent or more above 1981 filings. The total 1982 filings were more than double the 1975 filings. Foreign filings rose to 9,456, comprising about 13 percent of total trademark applications. This shows a continuing and perhaps increasing interest on the part of foreign businesses in extending protection for their brand names to the U.S. market, although foreign filings are still a much smaller percentage of total filings than in the case of patents. Figures 10 and 11 show historical trends in trademark applications and registrations.

Trademark Registration

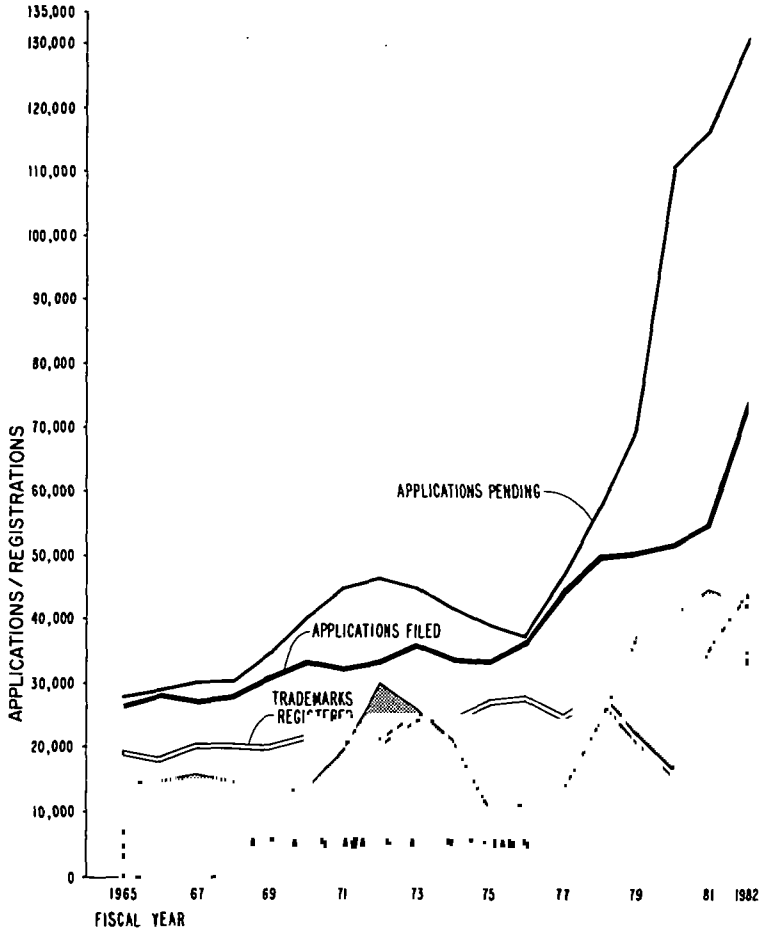
Trademarks registered were up to a record 43,630 in FY 1982. The increase resulted from higher output by the trademark examining staff. The process of printing trademark registrations and the trademark section of the weekly *Official Gazette* returned to normal in 1982, following the difficult 1980-81 period during which the Office's trademark printing contractor defaulted, and the resulting printing backlog had to be worked off by a new contractor. Trademark examining attorneys disposed of a record 64,319 applications and also took first actions on a record number of applications—64,840. The large number of first actions makes it likely that the number of registrations will be high again in 1983.

Trademark Pendency Time

The average trademark pendency time (between filing of the application and its registration or abandonment) was 21.3 months at the end of FY 1982. The time between the filing of an application in the PTO and the trademark examiner's first action on the application was 8.4 months at the end of the fiscal year. These pendency times were down from those of FY 1981 (24 months for total and 11 months to first action). This downward trend in pendency marked the beginning of progress toward the PTO's goal of

FIGURE 10

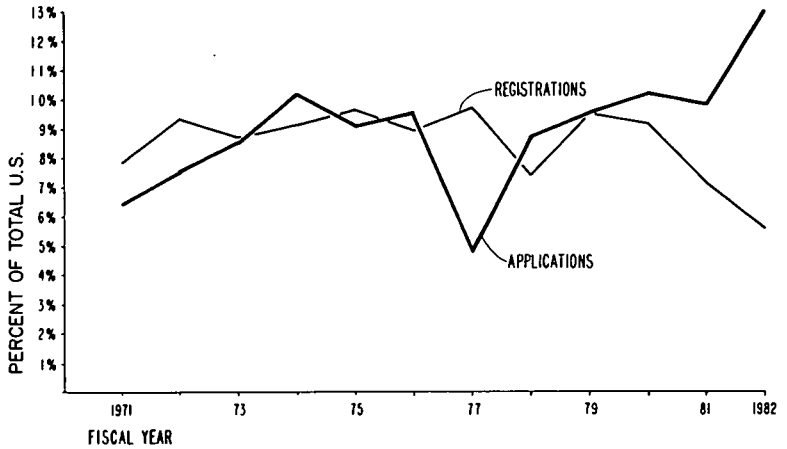
TRADEMARK APPLICATIONS FILED AND PENDING; AND TRADEMARKS REGISTERED (1965-1982)



reducing total pendency time to 13 months and reducing time to first action to 3 months by FY 1985. The total number of trademark applications pending in the PTO rose to a record 130,529, up from 116,598 a year earlier, because of the influx of filings. Figure 12 illustrates the stages in the trademark examining process, and the pendency times associated with each. Figure 13 shows historical trends in trademark pendency times.

FIGURE 11

U.S. TRADEMARK APPLICATIONS AND REGISTRATIONS FROM ABROAD (1971-1982)



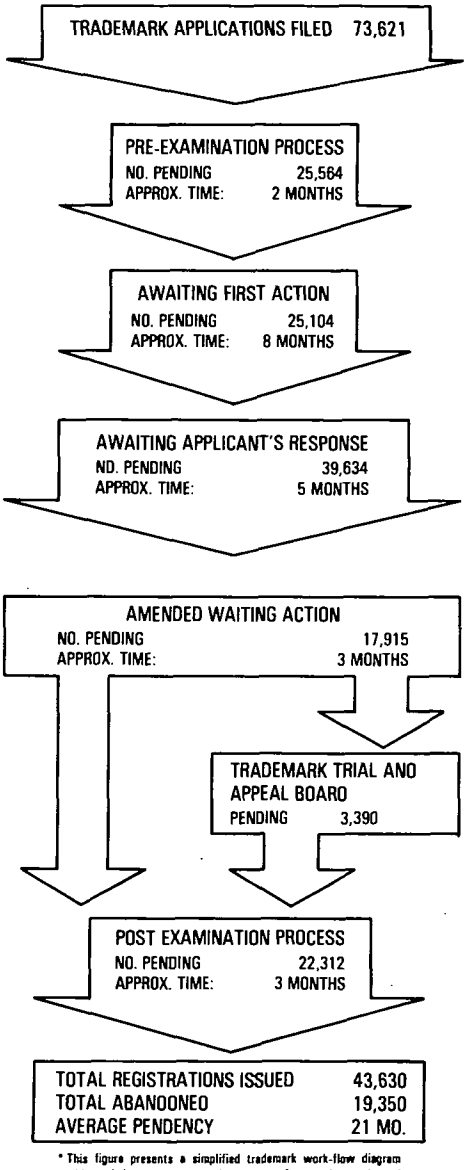
Trademark Examining Staff

In 1982 the PTO increased the size of its trademark examining attorney staff in order to reduce the pendency time of trademark applications. The staff increased to a record high average of 94 examiners, compared to an average of 80 in 1981 and 47 in 1979. At the end of the fiscal year the number of examining divisions was increased from six to eight. The PTO hired 20 new examiners in 1982, including hires to replace those who left the PTO. The attrition rate for examiners dropped in 1982.

Reorganization of Examining Operation

The examining operation was reorganized to give better service to the public and better clerical support to the examining divisions. The clerical force was decentralized to give each examining division a clerical staff of about five employees directly responsible to it. The telephone system was decentralized to give each division its own telephone receptionist. The docket system for storing pending trademark application files was decentralized, to make it easier for examiners, clerical support and members of the public to retrieve pending files. The reorganized divisions are called "law offices," reflecting that each unit is a self-contained organization of attorneys and support staff somewhat similar to a private law office. Each law office is headed by a Managing Attorney and has 13 or 14 examining attorneys.

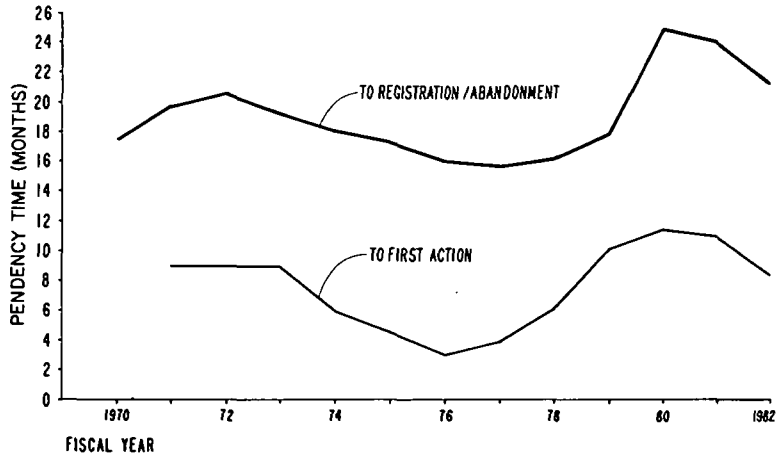
FIGURE 12
TRADEMARK EXAMINATION ACTIVITIES*



* This figure presents a simplified trademark work-flow diagram with statistics on cases at various stages of processing at the end of FY 1982.

FIGURE 13

PENDENCY TIME OF TRADEMARK APPLICATIONS (1970-1982)



Examination Quality and Productivity

Steps were taken to maintain and improve the quality of the Office's trademark examining work. Managers began reviewing more samples of examined applications before making decisions on promotions for examiners. The *Official Gazette* was reviewed each week to locate instances where examiners made clear errors in determining whether marks were merely descriptive of the goods or services. Merely descriptive marks were withdrawn from publication and the examination was reopened.

The Office continued its program for sending examiners to trade shows and exhibitions relating to the industries covered by the classes in which they examine. The trademark law library was further expanded. Efforts were expanded to recruit the best qualified attorneys obtainable. Trademark examining attorney vacancies were advertised widely; ten applicants were considered for every position filled.

Emphasis was placed on having the examiners do complete first actions, so that the prosecution could be concluded in the fewest actions possible consistent with giving the applicant a fair opportunity to respond and making a complete record. Also, examiners were required to act on amended cases no more than three months after receipt of the applicant's response. Consequently, the oldest amended cases in the law offices at the end of the year were awaiting action an average of three months, down from about 10 months at the beginning of the year.

A revised system of examiner productivity goals was instituted as part of a new system required by the Civil Service Reform Act of 1978 for meas-

uring the performance of Federal employees. The new productivity goals placed more emphasis on disposing of applications instead of merely writing large numbers of actions. The goals for new examiners were increased; the goals for the most senior examiners were reduced slightly. Examiner productivity increased to 0.47 disposals per hour from 0.40 disposals per hour in 1981.

In 1982 the percentage of applications disposed that were registered was lower than the traditional 75 percent. It was 69 percent in 1982. As explained below, the number of ex parte appeals to the Trademark Trial and Appeal Board rose substantially. The main reason for this increase is believed to be the disproportionate number of old amended cases acted on by the examiners during the year.

Trademark Services

Delays were reduced in some clerical processing functions—the time was shortened for providing certified copies of trademark registrations and for mailing out filing receipts to applicants after applications were filed.

The floor space in the trademark search library, used both by examiners and the public, was expanded by 500 square feet. In addition, additional space was made available in the search library by microfilming 554,000 older and infrequently used trademark records. Approximately 66,000 drawings of marks that had become registered or abandoned were purged from the file of pending marks in the search library. Plans were completed for a substantial expansion of the office space occupied by the clerical force and examiners. A new telephone number with a recorded message of general information about trademarks for the public was established. A recorded message service was also made available in the trademark search library to give the public the opportunity to leave telephone requests for information about the status of trademark registrations.

Clerical processing procedures were changed at the end of the fiscal year so that defective trademark applications not entitled to a filing date were mailed back to the applicant instead of being held for correction. A special training course was conducted for all clerical and secretarial employees in the examining operation to give them a broader understanding of the various trademark paper processing and trademark public service functions of the PTO.

Trademark Trial and Appeal Board

The Trademark Trial and Appeal Board is the PTO's administrative tribunal for deciding appeals from refusals to register trademarks by the Examining Operation and for determining certain inter partes trademark proceedings, most of which involve actions to oppose or cancel the registrations of trademarks thought to be confusingly similar to existing marks or otherwise not legally entitled to registration.

In 1982, 2,809 new cases were filed with the Board, a record figure and 25 percent higher than in 1981. The Board disposed of 2,362 cases,

2,009 of these before hearing (typically through settlement, default or motions for judgment) and 353 cases by final Board decisions after hearing. The latter involved 225 inter partes actions and 128 ex parte appeals. (See Table 20 for details).

By year end, the number of cases pending before the Board had increased 15 percent to 3,390 and there were some 108 Federal court appeals pending from TTAB decisions, two-thirds of these lodged with the new United States Court of Appeals for the Federal Circuit (into which the Court of Customs and Patent Appeals was merged as of October 1, 1982). Also, the year witnessed a sharp increase in the number and proportion of ex parte appeals received and disposed of. New filings of ex parte appeals jumped from 220 in 1981 to 626 in 1982 and disposals increased accordingly (from 174 in 1981 to 528 in 1982).

During 1982, Board professional resources were increased by the appointment of one additional member and one additional interlocutory attorney. The Board, which adjudicates cases in panels of three, had six members and four interlocutory attorneys at year end.

Trademark Fees

Pursuant to P.L. 97-247, trademark fees were increased effective October 1, 1982. The fee schedule adopted was designed to recover 100 percent of the cost of operating the trademark operations through 1985.

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chapter seven
OTHER ACTIVITIES

Equal Employment Programs

The PTO's Office of Equal Employment Programs (OEEP) developed an update for the agency's affirmative action program plan, a Federal equal opportunity recruitment plan, an affirmative action program plan for handicapped and disabled veterans, and an implementation plan for the agency's upward mobility program.

Among other activities, the OEEP held 55 informal complaint counseling sessions, consulted with women's advisory groups about the special concerns of women, developed and implemented training programs, and analyzed statistical data and other information on the employment of women and minorities.

Contracting Out Work Previously Performed "In-House"

Under the guidelines of OMB Circular A-76, a contract was awarded to a private firm for the reproduction of copies of patent and trademark registrations, reducing the staffing level by 78 positions.

Service to the Public

During the fiscal year, the delay between receipt of a new patent application and the mailing of the filing receipt was reduced from a high of 100 days in February to fewer than 50 days. Further reductions are expected in FY 1983.

A cooperative agreement between the Patent and Trademark Office and the Intellectual Property Owners, Inc. resulted in the Office making available to users of the Patent Public Search Room access to several on-line patent data bases upon payment of a fee. During the coming year, additional data bases will be added.

A special service has been made available to out-of-town requesters who wish to inspect patented files or abandoned or registered trademark files upon arrival in the area. Those who have to travel a considerable distance to inspect files may place their requests by telephone five days in advance of arrival.

A user survey was conducted to gather data on the public perception of the adequacy of services provided by the PTO and to identify principal areas of concern. There were 325 respondents, 89 of which are local bar association members, 88 out-of-town patent law association members, and 148 Patent Public Search Room users. A specific action plan was devel-

oped to improve services perceived as poor or fair by the majority of respondents. Most of the actions will take place in FY 1983.

Space

To provide additional space for projected staffing increases and to improve the overall distribution and utilization of existing space, the PTO acquired approximately 50,000 square feet of office and special space and about 44,000 square feet of warehouse space during FY 1982.

The additional office space allows for some presently separated organizations to be consolidated into one location, enabling a more effective and efficient utilization of space and staff. The special space acquired is a computer site, including extensive support equipment. This will enable the Office to install its new mainframe computer system at less cost and on a more timely basis than would otherwise have been possible.

The acquisition of the additional warehouse space has enabled the Office to transfer thousands of patented files to an off-site file repository. Materials formerly stored in four separate locations were consolidated in a new supply center/warehouse, and a computerized system that tracks supply requests, reports on inventory levels, and indicates time for reordering stock was implemented.

appendix
STATISTICAL TABLES

Table 1.—OPERATING COSTS

(In Thousands of Dollars)

	[1]1980	1981	1982
OPERATING UNITS			
Patent Process	$75,147	$80,819	$89,946
Trademark Process	6,643	7,992	9,762
Information Dissemination	21,958	24,311	26,128
Total Operating Units Costs	103,748	113,122	125,836
SALARIES AND EXPENSES			
Personnel Compensation	70,238	76,201	82,583
Personnel Benefits	6,259	6,836	7,682
Printing and Reproduction	11,619	15,748	15,882
Other Costs	15,632	14,337	19,689
Total Salaries and Expenses	$103,748	$113,122	$125,836

[1] Several changes were made in reporting costs for FY 1980. Most significant was a shift of $11,619,000 in printing costs from Information Dissemination to the Patent Process and Trademark Process.

Table 2.—TOTAL CONGRESSIONAL APPROPRIATIONS[1]

(1973–1982)

Fiscal Year	Total Actual Appropriations (Including Supplemental Appropriations[2])	Appropriation Changes[3]
1973	$67,280	$1,247
1974	71,982	921
1975	77,566	-446
1976[4]	85,350	1,624
1977[4]	89,400	-1,497
1978	94,321	1,458
1979	96,654	-1,692
1980	104,833	32
1981	116,150	3,809
1982	125,335	3,374

[1] In thousands of dollars.

[2] "Supplemental Appropriations" are the funding approved by the Congress to be added to the PTO's regular appropriation to cover certain changed circumstances—most commonly pay increases.

[3] "Appropriation Changes" represent the changes in funding level from the previous fiscal year, after pay increases and other uncontrollable cost increases have been taken into account.

[4] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.

Table 3.—END OF YEAR EMPLOYMENT[1]

(1976-1982)[2]

	[2]1976	[2]1977	1978	1979	1980	1981	1982
OPERATING UNITS:[3]							
Information Dissemination	953	867	823	788	697	732	628
Patent Process	1,829	1,788	1,795	1,719	1,671	1,776	1,950
Trademark Process	173	167	173	196	215	247	272
Total Operating Units Employment	2,955	2,822	2,791	2,703	2,583	2,755	2,850
PERSONNEL STAFFING:							
Patent Professional	1,047	1,063	1,064	995	949	985	1,175
Trademark Professional	71	72	68	79	88	98	106
All Others	1,837	1,687	1,659	1,629	1,546	1,672	1,569
Total Personnel Staffing	2,955	2,822	2,791	2,703	2,583	2,755	2,850

[1] Total paid employment, including full time permanent and others.
[2] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.
[3] The names of the PTO activities were changed in FY 1981, but the activities remained essentially the same.

Table 4.—INCOME FROM FEES

(In Thousands of Dollars)

Source of Income	1979	1980	1981	1982
PATENT-RELATED FEES				
Filing Fees				
Patent Applications	$8,861	$9,400	$10,004	$10,133
Design Applications	149	152	159	166
Patent Reissue Applications	56	52	44	34
Disclosure Documents	98	98	90	83
Issue Fees				
Patent	9,166	8,905	10,030	8,980
Design	103	122	149	147
PCT Application and Search Fees	178	297	346	249
Disclaimers	27	24	24	24
Attorney Registration and Certificates	43	36	34	40
Total Patent-Related Fees	18,681	19,086	20,880	19,856
TRADEMARK-RELATED FEES				
Applications	1,738	1,829	2,000	2,373
Oppositions and Cancellations	47	40	50	63
Renewals	158	166	145	145
Use/Non-Use Affidavits	154	164	172	175
Total Trademark-Related Fees	2,097	2,199	2,367	2,756
SERVICE AND RELATED FEES				
Appeals, including briefs	715	729	707	686
Certificates of Correction	43	38	45	50
Certification of Records	105	101	106	114
Making, Mounting, Correcting and Comparing Drawings	237	236	214	119
Petitions	40	38	36	35
Printed Copies	1,707	1,597	1,826	1,508
Recording Assignments	1,556	1,653	1,836	1,879
Reproduction of Records	887	753	814	819
Special Services on Orders	160	187	213	221
Subscription Service for Copies	21	19	21	23
Total Services and Related Fees	5,471	5,351	5,818	5,454
MISCELLANEOUS OTHER FEES[1]	862	556	428	469
TOTAL INCOME FROM FEES	$27,111	$27,192	$29,493	$28,535

[1] Approximately 35 types of fees.

Table 5.—SUMMARY OF PATENT EXAMINING ACTIVITIES

(As of September 30, 1982)

Patent Examining Activity	1980	1981	1982	Average 1973-82
PATENT APPLICATIONS FILED				
Utility[1]	104,219	106,828	116,052	103,638
Reissue	641	538	486	522
Plant	186	147	193	159
Design	7,269	7,197	8,069	6,731
Total Patent Appls. Filed	112,315	114,710	124,800	111,050
FIRST ACTIONS				
Design	7,278	7,182	6,066	6,191
All Others[3]	88,218	83,497	89,777	100,222
PATENT APPLICATIONS ALLOWED[2]				
Design	4,639	5,311	4,458	4,364
All Others[3]	60,611	58,187	54,484	67,480
Total Patent Appls. Allowed	65,250	63,498	58,942	71,844
PATENT APPLICATIONS ABANDONED				
Design	2,128	2,525	2,015	1,926
All Others[3]	29,106	30,058	29,099	34,099
Total Patent Appls. Aband.	31,234	32,583	31,114	36,025
TOTAL PATENT APPLICATION DISPOSALS[4]	96,484	96,081	90,056	107,869
PATENTS ISSUED[5]				
Utility	56,618	66,617	59,449	66,048
Reissue	305	343	284	351
Plant	137	168	120	164
Design	4,167	3,882	5,299	4,096
Total Patents Issued	61,227	71,010	65,152	70,659
PATENTS WITHHELD FROM ISSUANCE[6]	1,712	2,004	2,130	2,064
PENDENY TIME OF AVERAGE PATENT APPLICATION[7]	22.6	22.4	24.2	—
REEXAMINATIONS REQUESTED[8]	—	78	187	—
REEXAMINATION CERTIFICATES ISSUED	—	0	21	—
PCT SEARCH REPORTS PREPARED[9]	1,442	2,045	1,705	—
PCT INTERNATIONAL APPLICATIONS RECEIVED	1,647	1,797	1,867	—

[1] Chemical, electrical, and mechnical applications.

[2] "Allowed Patent Applications" are applications awaiting issuance (i.e., publication) as patents.

[3] Utility, plant, and reissue applications.

[4] *Disposals by examiners—i.e., the sum of applications allowed and applications abandoned. Final disposals can be obtained by* adding patents issued and applications abandoned. The Office measures the productivity of examiners in "production units", formerly called "balanced disposals." Production units are obtained by averaging first actions and examiners disposals.

[5] Excludes withdrawn numbers.

[6] For nonpayment of final issue fee (35 U.S.C. 151).

[7] Average time (months) between filing and issuance/abandonment of utility, plant, and reissue applications (excluding designs).

[8] Reexamination was instituted on July 1, 1981, in accordance with provisions of Patent Law 96-517.

[9] PCT entered into force on January 24, 1978, and applications were accepted for filing beginning June 1, 1978.

Table 6.—PATENT APPLICATIONS FILED

(1963-1982)

Year	Utility[1]	Design	Plant	Reissue	Total
1963	84,620	4,841	149	277	89,887
1964	87,482	5,067	147	207	92,903
1965	88,908	5,319	89	237	94,553
1966	93,022	5,187	103	266	98,578
1967	88,167	4,774	100	241	93,282
1968	90,252	4,889	107	304	95,552
1969	96,342	5,432	103	376	102,253
1970	100,116	5,722	113	344	106,295
1971	103,733	6,057	161	266	110,217
1972	102,663	6,358	166	293	109,480
1973	100,900	5,541	109	382	106,932
1974	103,479	4,948	109	391	108,927
1975	101,283	5,751	163	465	107,662
1976[2]	101,807	6,838	144	438	109,227
1977[2]	101,821	7,186	202	564	109,773
1978	100,473	7,440	171	660	108,744
1979	99,516	7,070	166	657	107,409
1980	104,219	7,269	186	641	112,315
1981	106,828	7,197	147	538	114,710
1982	116,052	8,069	193	486	124,800

[1] Chemical, electrical, and mechanical applications.
[2] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.

Table 7.—SUMMARY OF PENDING PATENT APPLICATIONS

(As of September 30, 1982)

Stage of Processing	Utility, Plant and Reissue Applns.	Design Applns.	All Pat. Applns.
IN PREEXAMINING PROCESSING	65,364	1,059	66,423
UNDER EXAMINATION			
Amended, Awaiting Action by Examiner	10,332	582	10,914
Awaiting First Action by Examiner	66,224	10,521	76,745
Awaiting Response by Applicant	53,675	1,651	55,326
In Interference	770	1	771
On Appeal	6,229	101	6,330
Total Under Examination	137,230	12,856	150,086
IN POSTEXAMINATION PROCESSING			
Awaiting Payment of Issue Fee	10,763	428	11,191
D-10's (Secret Cases in Condition for Allowance)	2,646	0	2,646
Total in Postexamination Processing	13,409	428	13,837
IN ISSUE PROCESSING			
Awaiting Printing Preprocessing[1]	6,808	1,137	7,945
Awaiting Printing	9,013	680	9,693
Total in Issue Processing	15,821	1,817	17,638
TOTAL IN PATENT AND TRADEMARK OFFICE	231,824	16,160	247,984

[1] In the Patent and Trademark Office, with the issue fee paid.

Table 8.—PATENTS PENDING PRIOR TO ALLOWANCE[1]

(1963-1982)

Year	Awaiting Action by Examiner[2]	Total Applns. Pending[3]	Year	Awaiting Action by Examiner[2]	Total Applns. Pending[3]
1963	119,946	215,577	1973	64,940	175,281
1964	129,151	226,066	1974	47,411	162,447
1965	149,284	212,416	1975	41,916	146,464
1966	147,664	214,664	1976[4]	43,776	142,379
1967	136,672	205,768	1977[4]	60,706	144,542
1968	109,509	194,087	1978	57,031	144,056
1969	103,704	[5]196,338	1979	50,085	151,702
1970	81,548	192,575	1980	64,289	167,533
1971	64,890	190,103	1981	71,033	181,727
1972	70,477	189,177	1982	87,659	216,509

[1] Pending at end of period indicated including utility, reissue, plant, and design applications. Does not include allowed applications.
[2] Through 1965, includes applications having suspended actions.
[3] Applications awaiting examination, including those in preexamination processing.
[4] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.
[5] Revised.

Table 9.—PATENTS ISSUED[1]

(1963-1982)

Year	Utility[2]	Design	Plant	Reissue	Total
1963	53,958	2,411	114	215	56,698
1964	44,050	3,019	147	203	47,419
1965	52,914	2,979	127	204	56,224
1966	66,243	3,638	105	238	70,224
1967	70,028	2,840	102	180	73,150
1968	61,599	3,539	67	185	65,390
1969	61,957	2,991	80	201	65,229
1970	66,339	3,401	80	311	70,131
1971	[3]70,387	3,097	77	222	[3]73,783
1972	83,221	3,032	170	264	86,687
1973	[4]67,490	3,441	146	274	[4]71,351
1974	79,300	4,439	211	367	84,317
1975	[5]70,179	3,632	155	398	[5]74,364
1976[6]	[5]75,325	4,781	195	434	[5]80,735
1977[6]	67,972	4,261	164	435	72,832
1978	65,963	3,797	194	366	70,320
1979	51,686	3,269	151	312	55,418
1980	56,618	4,167	137	305	61,227
1981	66,617	3,882	168	343	71,010
1982	59,449	5,299	120	284	65,152

[1] Excludes withdrawn numbers beginning with FY 1978.
[2] Chemical, electrical, and mechanical applications.
[3] Does not include 1,300 voided numbers.
[4] Does not include 1,418 voided numbers.
[5] In 1975, under the trial voluntary protest program (now abolished), an additional 667 applications were published but not issued; in 1976, there were 1,303 published but not issued.
[6] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.

Table 10.—REEXAMINATION

	July 1, 1982—September 30, 1981[1]	1982
REQUESTS FILED		
By patent owner	18	68
By third party	60	116
Commissioner ordered	0	3
Total	78	187
DETERMINATIONS ON REQUESTS		
Requests granted		
By examiner	30	156
By petition	2	7
Requests denied	2	39
Total	34	202
REQUESTS HAVING RELATED LITIGATION	30	37
COURT ORDERED REEXAMINATIONS	4	3
AVERAGE AGE OF PATENTS (years)	6.99	5.17
AGE RANGE OF PATENTS (years)	0.47-18.25	0.25-21.08
AVERAGE CLAIMS PER REQUEST	13.20	14.56
AVERAGE REFERENCES PER REQUEST	9.36	8.22
FILINGS BY DISCIPLINE		
Chemical	23	57
Electrical	25	59
Mechanical	30	71
Total	78	187

[1] Reexamination was instituted on July 1, 1981, in accordance with provisions of P.L. 96-517.

Table 11.—SUMMARY OF CONTESTED PATENT CASES

(Within the Patent and Trademark Office)

Patent and Trademark Office Tribunal	Totals
BOARD OF PATENT APPEALS	
Cases Pending as of 9/30/81:	
Appeals	4,968
Reconsideration	66
Cases Filed During FY 82:	
Appeals	3,506
Reconsideration	419
Total	8,856
Disposals	
Affirmed	2,378
Affirmed-In-Part	256
Dismissed	7
Reversed	854
Suspended	0
Withdrawn	198
Total Disposals[1]	4,067
Total Cases Pending as of 9/30/82[2]	4,892
BOARD OF PATENT INTERFERENCES	
Interferences Pending as of 9/30/81	531
Interferences Declared During FY 82	193
Total	724
Disposals:	
Interferences Terminated	242
Total Interferences Awaiting Final Board Disposition as of 9/30/82:	
Awaiting a Final Decision	51
Awaiting the Setting of a Final Hearing	11
Set for Final Hearing	14
Total Interferences Awaiting Final Board Disposition	76
Total Interferences Pending as of 9/30/82	482

[1] Reconsideration included: 374
[2] Reconsideration included: 111

Table 12.—U.S. GOVERNMENT AGENCY PATENTS[1]

(1972-1982)

Agency	1972	1973	1974	1975	[2]1976	[2]1977	1978	1979	1980	1981	1982	Total (1972-1982)
Agriculture	119	97	127	130	159	104	70	39	54	53	46	998
Air Force	195	171	160	139	164	183	137	115	159	123	89	1,635
Army	397	384	446	301	374	376	262	214	233	229	196	3,412
AEC[3]	309	220	276	111	0	0	0	0	0	0	0	916
Commerce	8	3	3	5	14	7	5	9	6	5	7	72
Energy	0	0	0	131	273	224	198	166	159	233	210	1,595
State	0	0	2	0	3	1	1	0	0	0	0	7
Transportation	0	0	7	7	11	0	0	4	3	3	1	38
NSA	0	0	0	0	0	0	0	2	1	1	2	6
EPA	0	2	6	6	9	4	3	4	3	10	1	48
FAA	7	2	1	0	0	0	0	3	0	0	0	13
FBI	0	0	1	0	0	0	0	0	0	0	0	1
HEW/HHS	24	22	39	34	40	17	31	20	23	27	19	296
Interior	76	48	57	56	67	68	59	20	35	43	27	556
Library of Congress	0	0	0	0	1	1	0	0	0	0	0	2
NASA	313	187	285	149	139	93	116	80	74	70	73	1,581
NSF	2	0	0	0	1	0	0	0	0	0	0	3
Navy	651	639	626	522	731	535	363	299	390	326	319	5,401
Postal Service	1	0	0	0	1	4	0	0	0	0	0	9
TVA	2	7	4	4	8	5	2	0	0	0	0	32
Treasury	0	1	0	0	0	0	1	0	0	2	1	5
VA	0	0	2	3	1	1	2	1	2	0	2	14
USA[4]	7	17	8	15	33	45	30	13	14	11	12	206
Justice	0	0	0	0	0	0	0	2	0	0	0	2
FCC	0	0	0	0	0	5	1	0	0	2	2	10
Total	2,111	1,800	2,050	1,613	2,029	1,673	1,283	992	1,156	1,144	1,007	16,858

[1] Data in this table represent patents assigned to agencies at the time of patent issue.
[2] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.
[3] AEC absorbed into DOE in 1976.
[4] United States of America—no agency indicated in data base.

Table 13.—PATENTS ISSUED TO RESIDENTS OF THE UNITED STATES

(1975–1982)[1]

State/Territory	1975	[2]1976	[2]1977	1978	1979	1980	1981	1982
Alabama	221	265	208	205	163	201	196	218
Alaska	30	34	26	29	18	31	12	20
American Samoa	13	13	5	4	3	8	0	0
Arizona	436	511	481	464	382	446	555	460
Arkansas	91	102	102	108	65	73	102	66
California	6,510	7,101	6,923	6,211	4,839	5,335	6,038	5,481
Canal Zone	8	5	2	4	4	2	1	0
Colorado	595	649	617	561	471	528	593	534
Connecticut	1,612	1,752	1,552	1,385	1,086	1,210	1,273	1,202
Delaware	461	513	413	384	264	271	326	298
District of Columbia	88	83	70	62	58	58	76	47
Florida	1,059	1,085	1,096	1,051	798	1,024	1,258	1,062
Georgia	353	383	337	346	311	337	424	410
Guam	3	4	1	3	2	1	0	0
Hawaii	61	51	43	41	32	32	49	31
Idaho	99	94	80	73	60	80	88	86
Illinois	3,959	4,173	3,751	3,390	2,581	2,868	2,882	2,702
Indiana	1,172	1,177	1,069	998	813	865	1,016	1,013
Iowa	386	446	451	366	261	331	379	324
Kansas	362	351	302	307	256	255	251	202
Kentucky	343	323	281	288	227	262	282	287
Louisiana	357	404	352	319	266	282	327	289
Maine	76	61	52	71	53	61	86	84
Maryland	913	1,072	861	829	665	702	770	749
Massachusetts	2,062	2,192	1,860	1,758	1,475	1,555	1,754	1,602
Michigan	2,832	2,691	2,474	2,373	1,875	2,130	2,457	1,912
Minnesota	1,029	1,082	968	905	786	851	975	871
Mississippi	103	100	74	76	68	68	81	68
Missouri	712	728	651	687	474	613	729	583
Montana	60	48	45	65	35	55	71	45
Nebraska	147	140	130	119	108	109	129	125
Nevada	92	85	111	105	84	88	103	100
New Hampshire	165	171	176	170	137	160	174	203
New Jersey	3,723	4,188	3,687	3,594	2,719	2,913	3,279	3,022
New Mexico	81	145	116	104	68	105	119	104
New York	5,015	5,109	4,737	4,259	3,168	3,406	3,812	3,574
North Carolina	535	576	540	529	409	491	600	509
North Dakota	46	45	44	58	30	35	30	42
Ohio	3,215	3,223	2,898	2,761	2,026	2,165	2,624	2,299
Oklahoma	747	725	618	655	519	592	709	628
Oregon	348	357	328	349	281	314	357	310
Pennsylvania	3,578	3,583	3,223	3,029	2,277	2,410	2,797	2,449
Puerto Rico	25	14	25	25	15	9	27	18
Rhode Island	215	217	209	164	128	143	137	132
South Carolina	259	274	233	281	183	232	260	264
South Dakota	45	48	43	40	27	17	38	33
Tennessee	399	416	374	372	311	376	451	378
Texas	2,153	2,235	2,063	2,037	1,606	1,789	2,030	1,997
Utah	230	242	225	191	169	213	217	198
Vermont	76	70	75	79	61	56	85	80

Table 13.—PATENTS ISSUED TO RESIDENTS OF THE UNITED STATES—Continued

(1975–1982)[1]

State/Territory	1975	[2]1976	[2]1977	1978	1979	1980	1981	1982
Virgin Islands	19	7	9	4	7	7	3	2
Virginia	644	696	637	600	426	511	618	564
Washington	530	595	561	540	449	518	534	505
West Virginia	126	162	162	172	134	144	161	150
Wisconsin	1,041	948	882	846	618	760	806	748
Wyoming	34	43	38	31	32	35	43	19
U.S. Air Force[3]	0	1	1	0	0	1	0	0
U.S. Navy[3]	0	0	0	1	0	0	0	0
TOTAL	49,494	51,808	47,292	44,482	34,383	38,134	43,194	39,099

[1] Data includes design, plant, and reissue patents.
[2] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.
[3] Represents residents of the United States with military addresses.

Table 14.—UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES

(1979–1982)

Country	1979	1980	1981	1982
Antigua	0	0	1	0
Argentina	72	54	62	40
Australia	630	685	718	756
Austria	463	399	517	458
Bahamas	13	5	8	5
Bahrain	1	1	0	0
Barbados	1	0	0	0
Belgium	408	389	403	456
Bermuda	5	2	1	1
Bolivia	4	0	2	1
Brazil	73	61	68	66
British Virgin Islands	0	0	2	1
Brunei	0	0	1	0
Bulgaria	36	39	36	34
Canada	2,230	2,289	2,413	2,538
Cayman Islands	0	0	0	1
Chile	8	9	12	11
China, People's Republic of	12	12	5	16
Colombia	9	5	5	19
Congo	1	1	0	0
Costa Rica	8	10	0	1
Cuba	4	2	1	1
Cyprus	1	1	1	1
Czechoslovakia	79	88	82	79
Denmark	273	213	275	322
Dominican Republic	0	3	1	1
Ecuador	1	1	2	0
Egypt	8	3	2	3
El Salvador	0	0	1	0
EPO	0	0	0	1

Table 14.—UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES—Continued

(1979-1982)

Country	1979	1980	1981	1982
Finland	261	294	275	342
France	3,152	3,533	3,519	3,732
Gabon	0	0	1	1
Germany, Dem. Republic of	126	109	88	119
Germany, Fed. Republic of	9,091	9,872	10,133	10,979
Gilbert Islands	0	2	0	0
Greece	20	15	31	65
Greenland	0	1	0	0
Guatemala	5	2	2	6
Guina	0	0	1	1
Haiti	2	0	2	2
Honduras	0	0	1	2
Hong Kong	112	118	103	157
Hungary	182	201	207	253
Iceland	4	2	5	3
India	29	22	18	25
Indonesia	0	9	2	6
Iran	3	2	3	0
Iraq	0	0	1	1
Ireland	44	45	54	68
Israel	248	272	290	359
Italy	1,527	1,520	1,544	1,769
Ivory Coast	0	0	1	1
Jamaica	3	1	0	2
Japan	11,053	13,079	14,375	17,349
Jordan	0	1	1	0
Kenya	1	1	0	0
Korea, Dem. Republic of	2	8	3	2
Korea, Republic of	37	39	55	87
Kuwait	1	12	8	3
Lebanon	4	1	3	1
Liberia	1	0	0	0
Libya	3	0	0	0
Liechtenstein	23	21	28	15
Luxembourg	35	31	44	55
Madagascar	1	0	0	0
Malawi	1	0	0	0
Malaysia	1	4	8	7
Malta	0	1	0	1
Martinique	1	0	0	0
Mauritania	2	0	0	0
Mauritius	0	1	0	0
Mexico	91	83	104	77
Midway Islands	0	0	1	0
Monaco	13	8	6	11
Morocco	0	2	2	1
Nauru	0	1	0	0
Netherlands	1,035	1,035	1,109	1,191
New Zealand	113	132	126	119
Nicaragua	4	0	0	0

Table 14.—UNITED STATES PATENT APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES—Continued

(1979-1982)

Country	1979	1980	1981	1982
Nigeria	3	4	1	0
Niue	0	1	0	0
Norway	168	127	160	156
Pakistan	0	2	2	2
Panama	3	2	1	0
Paraguay	0	1	2	0
Peru	0	3	2	3
Philippines	9	17	12	28
Poland	87	71	50	30
Portugal	6	7	3	9
Romania	21	8	13	12
San Marino	1	3	0	0
Saudi Arabia	0	2	3	13
Senegal	2	0	0	1
Singapore	11	7	5	9
South Africa	217	188	219	250
Soviet Union	550	341	472	376
Spain	177	168	190	175
St. Helena	0	1	0	0
Sudan	1	0	0	0
Swaziland	2	0	0	1
Sweden	1,301	1,256	1,447	1,347
Switzerland	1,967	1,994	1,946	1,973
Syria	0	0	0	1
Taiwan	254	369	423	583
Tanzania	0	0	1	0
Thailand	6	5	4	5
Trinidad & Tobago	6	0	1	2
Tunisia	3	2	4	1
Turkey	4	5	2	3
United Arab Emirates	0	0	2	0
United Kingdom	4,423	4,470	4,474	4,807
Upper Volta	1	0	0	0
Uruguay	9	27	11	17
Vanuatu	0	3	0	0
Venezuela	22	18	30	25
Vietnam, Republic of	0	1	0	0
Yugoslavia	29	24	31	28
Zambia	0	0	0	2
Zimbabwe	1	3	1	0
Total	40,854	43,882	46,283	51,483

Table 15.—PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES

(1975–1982)[1]

Country	1975	[2]1976	[2]1977	1978	1979	1980	1981	1982
Algeria	0	1	0	1	0	0	0	0
Argentina	32	22	24	46	90	42	24	15
Australia	253	299	272	297	252	269	360	330
Austria	275	339	297	287	221	253	299	227
Bahamas	17	9	5	8	7	4	6	4
Bahrain	0	0	0	0	0	0	1	0
Belgium	302	337	306	280	213	235	296	220
Bermuda	3	2	4	1	1	2	5	1
Bolivia	9	6	0	3	0	7	1	0
Brazil	22	20	25	30	12	24	29	26
Bulgaria	15	27	36	32	18	19	33	16
Burma	0	0	0	1	1	1	0	0
Canada	1,324	1,411	1,388	1,338	1,105	1,118	1,330	1,145
Cayman Islands	0	0	0	0	0	0	0	1
Chile	5	7	2	4	3	2	3	2
China, People's Republic of	0	0	2	0	1	2	4	1
Colombia	6	4	6	12	5	7	6	4
Congo	4	12	11	1	0	1	1	0
Costa Rica	2	8	0	1	11	2	7	4
Cuba	1	1	1	3	1	3	3	0
Cyprus	2	1	2	1	0	2	0	1
Czechoslovakia	121	110	109	93	52	56	48	55
Dahomey	1	1	0	0	0	0	0	0
Denmark	176	210	172	183	133	147	160	139
Dominican Republic	1	0	1	1	0	0	1	0
Ecuador	6	7	1	0	1	0	0	0
Egypt	1	4	1	0	1	1	3	2
El Salvador	1	5	3	2	5	1	0	0
Ethiopia	0	0	2	2	0	0	0	0
Finland	102	112	99	141	85	124	147	143
France	2,399	2,666	2,255	2,225	1,728	2,015	2,258	2,123
Germany, Dem. Republic of	0	0	1	3	0	22	42	58
Germany, Fed. Republic of	5,780	6,800	5,902	5,883	4,935	5,354	6,436	5,697
Greece	3	17	11	11	7	5	7	11
Greenland	0	0	0	0	0	0	0	1
Guatemala	3	5	3	4	0	1	1	0
Guinea	0	0	1	1	0	0	0	0
Haiti	4	4	1	0	2	2	1	2
Honduras	0	1	1	1	1	0	0	0
Hong Kong	19	46	32	33	30	48	60	71
Hungary	64	66	69	82	57	77	98	102
Iceland	5	6	3	13	35	11	1	0
India	17	14	16	20	15	10	13	2
Indonesia	6	5	0	4	5	3	2	5
Iran	4	5	3	5	8	7	2	0
Ireland	26	34	21	32	21	22	23	26
Israel	95	119	97	107	92	105	134	123
Italy	762	866	810	761	638	742	933	834
Ivory Coast	0	0	1	0	0	0	0	1
Jamaica	1	0	3	3	1	4	0	0

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Table 15.—PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES—Continued

(1975-1982)[1]

Country	1975	[2]1976	[2]1977	1978	1979	1980	1981	1982
Japan	5,899	7,383	6,462	7,099	5,827	6,626	8,459	8,789
Jordan	0	0	0	1	1	0	0	0
Kenya	0	2	1	0	0	4	0	1
Kiribati	0	0	0	0	0	0	1	0
Korea, Dem. Republic of	0	0	0	0	0	0	0	1
Korea, Republic of	8	9	5	14	9	9	20	18
Kuwait	1	0	0	1	2	0	0	0
Lebanon	7	4	0	3	0	0	2	1
Liberia	0	0	0	1	0	0	1	0
Libya	1	0	1	2	0	1	0	0
Liechtenstein	10	14	10	12	10	14	17	16
Luxembourg	13	20	14	21	19	17	26	34
Madagascar	0	0	0	1	1	0	0	0
Malawi	0	0	0	0	0	0	1	0
Malaysia	0	3	2	5	2	1	1	2
Mali	0	0	0	2	0	1	0	0
Mauritania	1	0	0	0	0	0	1	0
Mauritius	0	0	0	0	0	0	1	0
Mexico	71	78	65	42	39	43	40	43
Monaco	9	8	5	9	1	6	7	6
Morocco	1	0	4	1	1	1	0	0
Namibia	0	0	0	0	0	1	0	0
Netherlands	665	709	770	680	579	585	700	630
New Zealand	24	37	32	46	28	51	62	54
Nicaragua	1	3	2	3	0	0	1	0
Nigeria	1	1	1	3	1	1	2	1
Norway	106	110	113	103	89	80	89	87
Pakistan	0	2	1	0	0	1	0	1
Panama	5	4	3	0	1	2	0	1
Paraguay	0	0	1	1	0	2	0	1
Peru	5	8	6	1	3	1	0	4
Philippines	7	8	10	8	6	3	6	8
Poland	32	35	26	29	30	30	34	37
Portugal	7	5	3	5	1	1	3	12
Romania	21	15	20	11	7	16	13	3
Saudi Arabia	2	0	3	0	1	2	0	1
Senegal	0	0	0	0	1	0	2	0
Singapore	6	4	3	5	2	5	4	2
South Africa	74	89	81	86	67	80	106	79
Soviet Union	454	435	399	386	398	403	427	242
Spain	87	105	114	95	63	65	71	54
Sri Lanka	0	0	2	0	0	1	0	0
Sudan	2	0	1	0	0	0	0	0
Swaziland	0	0	0	0	0	1	0	0
Sweden	939	1,118	1,005	918	680	778	889	814
Switzerland	1,354	1,603	1,438	1,374	1,107	1,133	1,313	1,216
Syria	0	1	0	0	0	0	0	0
Taiwan	28	29	49	40	35	58	90	89
Tanzania	0	0	1	0	0	0	0	0
Thailand	2	1	3	0	1	3	1	1

Table 15.—PATENTS ISSUED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES—Continued

(1975–1982)[1]

Country	1975	[2]1976	[2]1977	1978	1979	1980	1981	1982
Trinidad & Tobago	3	1	3	4	4	2	1	1
Tunisia	0	0	1	0	0	3	0	2
Turkey	0	0	2	1	1	4	1	1
Uganda	1	1	0	0	0	0	0	0
United Kingdom	3,071	3,443	2,831	2,850	2,203	2,281	2,616	2,357
Upper Volta	0	0	0	0	0	0	1	0
Uruguay	1	2	0	0	0	0	4	26
Vanuatu	0	0	0	0	0	0	1	0
Venezuela	9	2	9	8	13	11	12	12
Vietnam, Republic of	2	1	1	1	0	1	0	0
Yemen	0	0	0	0	1	0	0	0
Yugoslavia	10	5	7	9	7	13	10	14
Zambia	0	1	0	0	0	0	0	0
Zimbabwe	2	1	4	1	0	1	1	0
TOTALS	24,821	28,909	25,513	25,838	21,035	23,093	27,816	26,053

[1] Data includes design, plant, and reissue patents.
[2] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.

Table 16.—PATENT CLASSIFICATION ACTIVITY

(1979–1982)

Classification Activity	1979	1980	1981	1982
PATENTS RECLASSIFIED AND PROCESSED[1]				
Cross-Reference U.S. Patents	314,723	219,203	200,652	244,105
Foreign Patents	239,000	232,000	180,000	170,000
Original U.S. Patents	149,151	145,206	112,420	106,416
Total Patents Reclassified	702,874	596,409	493,072	520,521
ORIGINAL PATENTS PROFESSIONALLY RECLASSIFIED[2]				
Completed Projects			113,284	82,694
Pro Rata Count of Projects[3]			134,902	105,332
SUBCLASSES ESTABLISHED	6,883	5,261	5,287	4,667

[1] All professional and clerical processing has been completed. Users may now access these documents via their new classifications.
[2] Measured in terms of original patents, data available for 1981 only. Professionals includes classifiers, technicians, and patent examiner detailees. Data does not include clerical processing.
[3] Original patents reclassified during the fiscal year irrespective of project completion status.

Table 17.—SUMMARY OF TRADEMARK EXAMINING ACTIVITIES

(1976-1982)[1]

Item	1976	1977	1978	1979	1980	1981	1982
Applications for Registration Filed	37,074	44,539	50,106	50,672	52,149	55,152	73,621
Disposal of Trademark Applications:							
Applications Maturing to Registration	31,266	27,431	31,623	24,961	16,366	34,748	43,630
Applications Abandoned	7,986	9,055	8,287	10,061	8,023	14,589	19,350
Applications Approved for Publication	31,266	27,431	31,623	24,961	28,974	34,759	45,621
Certificates of Registration Issued:[2]							
1946 Act Principal Register	27,286	24,256	28,236	21,496	14,149	30,223	37,506
1946 Act Supplemental Register	816	770	685	714	465	1,083	1,519
Total	28,102	25,026	28,921	22,210	14,614	31,306	39,025
Renewal of Registration:							
Applications Filed	6,833	5,854	5,567	5,623	5,892	5,693	5,760
Applications Abandoned	121	18	52	32	35	62	23
Registrations Renewed	6,914	6,215	5,254	5,404	5,862	5,884	6,070
Affidavits, Sec 8:							
Affidavits Filed	15,665	13,463	13,351	13,864	13,633	17,071	15,068
Affidavits Disposed	12,376	12,796	9,681	7,560	11,332	14,936	16,970
Affidavits for Benefits Under Sec. 12(c):							
Affidavits Filed	24	30	77	10	85	40	55
Affidavits Abandoned	0	3	0	3	0	0	0
Published Under Sec. 12(c)	56	21	84	34	54	77	71
Pendency Time of Average Trademark Application:							
Between Filing and Examiner's First Action[3]	3.0	3.0	6.0	10.2	11.5	11.0	8.4
Between Filing and Registration/ Abandonment[3]	16.0	14.8	16.2	17.9	24.9	24.0	21.3

[1] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.

[2] A single certificate of registration is issued for an application covering more than one class, but elsewhere in this table, applications are counted extra times for extra classes.

[3] Average pendency time in months.

Table 18.—TRADEMARK APPLICATIONS FILED FOR REGISTRATION AND RENEWAL AND TRADEMARK AFFIDAVITS FILED

(1963–1982)

Year	For Regis.	For Renewal	Section 8 Affidavit	Sec. 12(c) Affidavit
1963	24,224	2,604	12,752	311
1964	25,574	2,824	12,055	261
1965	26,657	3,049	13,923	308
1966	28,438	3,695	13,705	518
1967	27,628	3,844	11,156	341
1968	28,292	4,089	12,116	231
1969	31,268	6,267	13,890	90
1970	33,807	6,329	14,283	59
1971	32,803	6,189	12,263	76
1972	33,741	5,980	13,256	46
1973	[1]36,204	5,614	13,605	74
1974	34,193	5,633	13,259	55
1975	33,898	5,687	14,644	29
1976[2]	37,074	6,833	15,665	24
1977[2]	44,539	5,854	13,463	30
1978	50,106	5,567	13,351	77
1979	50,672	5,623	13,864	10
1980	52,149	5,892	13,633	85
1981	55,152	5,693	17,071	40
1982	73,621	5,760	15,068	55

[1] Revised.
[2] The Transition Quarter, July 1, 1976, to September 30, 1976, has been omitted.

Table 19.—SUMMARY OF PENDING TRADEMARK APPLICATIONS AND TRADEMARK AFFIDAVITS

(As of September 30, 1982)

Stage of Processing	Applications		Affidavits	
	For Regis.	For Renewal	Under Sect. 8	Sect. 12(c)
IN PREEXAMINATION PROCESSING	25,564	—	—	—
UNDER EXAMINATION				
Amended, awaiting action by examiner	17,915	0	0	0
Awaiting first action by examiner	25,104	279	115	2
Awaiting subsequent action (by applicant, on appeal, in adversary proceedings, in clerical processing)	39,634	770	2,075	2
Total Under Examination	82,653	1,049	2,190	4
Total	108,217	1,049	2,190	4
IN POSTEXAMINATION PROCESSING (Includes all applications in all phases of publication and issue)	22,312	61	0	15
TOTAL IN PATENT AND TRADEMARK OFFICE	130,529	1,110	2,190	19

Table 20.—SUMMARY OF CONTESTED TRADEMARK CASES

(Within the Patent and Trademark Office)

Trademark Trial and Appeal Board	Ex Parte	Cancel	Conc. Use	Inter.	Oppos.	Total
Receipts						
Cases Pending as of 9/30/81	256	536	30	1	2,120	2,943
Cases Filed During FY 1982	706	456	23	0	1,624	2,809
Total Receipts	962	992	53	1	3,744	5,752
Disposals	528	354	9	1	1,470	2,362
Total Cases Pending as of 9/30/82	434	638	44	0	2,274	3,390

Table 21.—TRADEMARKS REGISTERED, RENEWED, AND PUBLISHED UNDER SECTION 12(c)[1]

(1963-1982)

Year	Registered[2]	Renewed	Published Under 12(c)
1963	18,266	2,450	322
1964	20,689	2,834	329
1965	19,452	2,870	336
1966	18,671	3,441	497
1967	20,604	3,820	403
1968	20,385	3,726	290
1969	20,306	5,442	182
1970	21,974	6,370	103
1971	21,686	6,380	112
1972	21,062	5,836	56
1973	25,432	5,398	69
1974	24,838	5,984	54
1975	27,324	5,474	25
1976[3]	28,102	6,914	56
1977[3]	25,026	6,251	21
1978	28,921	5,254	84
1979	22,210	5,404	34
1980	14,614	5,862	54
1981	31,306	5,884	77
1982	39,025	6,070	71

[1] Includes withdrawn numbers.
[2] Certificates of registration issued.
[3] The Transition Quarter, July 1, 1976,to September 30, 1976, has been omitted.

Table 22.—UNITED STATES TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES

(1979–1982)

Country	1979	1980	1981	1982
Algeria	1	0	1	0
Andorra	1	0	0	0
Argentina	20	43	13	21
Australia	130	109	136	176
Austria	36	50	35	120
Bahamas	3	0	4	20
Bahrain	0	0	0	1
Barbados	0	0	3	1
Belgium	37	19	49	93
Benelux Conv.	0	0	0	1
Bermuda	4	19	17	7
Brazil	43	23	42	66
British Virgin Islands	0	4	0	0
Canada	797	702	859	1,342
Cayman Islands	0	4	0	14
Chile	4	0	12	9
China, People's Republic of	0	19	33	73
Colombia	6	12	7	22
Costa Rica	2	0	3	1
Cuba	1	0	0	0
Czechoslovakia	7	0	3	2
Denmark	57	85	54	87
Dominican Republic	3	0	6	2
Ecuador	0	0	1	2
Egypt	0	0	3	0
El Salvador	1	0	2	1
Fiji	0	0	1	0
Finland	27	19	37	64
France	568	807	689	1,293
Germany, Dem. Republic of	0	0	3	5
Germany, Fed. Repulic of	671	833	696	1,196
Ghana	0	0	0	2
Greece	5	0	4	6
Guatemala	0	4	3	5
Guyana	5	0	0	1
Haiti	0	0	0	1
Honduras	2	0	0	0
Hong Kong	71	105	90	169
Hungary	0	12	3	14
Iceland	0	0	4	14
India	7	12	4	2
Indonesia	1	0	0	2
Iran	8	0	6	1
Ireland	18	8	19	10
Israel	37	27	22	46
Italy	333	365	367	1,020
Jamaica	5	0	0	5
Japan	445	469	613	911
Kenya	2	0	0	1
Kiribati	0	0	1	0

Table 22.—UNITED STATES TRADEMARK APPLICATIONS FILED BY RESIDENTS OF FOREIGN COUNTRIES—Continued

(1979–1982)

Country	1979	1980	1981	1982
Korea, Dem. Republic of	0	0	0	1
Korea, Republic of	9	0	14	21
Kuwait	1	0	0	0
Lebanon	1	0	5	0
Liberia	3	0	2	1
Liechtenstein	21	31	20	20
Luxembourg	6	0	1	9
Macau	0	0	3	1
Madagascar	2	4	9	1
Malaysia	1	0	1	0
Mexico	46	62	58	90
Monaco	5	0	3	17
Morocco	0	0	0	1
Nauru	0	0	6	1
Netherlands	89	113	120	276
New Zealand	38	50	26	71
Nicaragua	0	12	1	0
Niger	3	4	0	0
Norway	23	16	19	28
Panama	13	8	10	21
Paraguay	0	16	0	0
Peru	6	0	2	1
Philippines	6	4	15	4
Poland	2	8	3	4
Portugal	15	16	59	98
Qatar	0	0	1	0
Romania	4	0	2	4
Rwanda	1	0	0	0
San Marino	0	0	1	0
Saudi Arabia	1	0	2	1
Sierra Leone	1	0	0	0
Singapore	13	0	10	12
South Africa	29	0	21	48
Soviet Union	5	35	9	16
Spain	100	159	107	160
Sri Lanka	0	0	1	0
Surinam	0	0	2	0
Swaziland	3	0	0	0
Sweden	129	167	124	236
Switzerland	243	268	250	380
Syria	0	0	1	0
Taiwan	40	31	38	82
Thailand	1	12	2	1
Trinidad & Tobago	1	12	1	4
Uganda	1	0	0	0
United Kingdom	582	547	597	945
Venezuela	2	4	5	22
Vietnam, Republic of	0	0	2	1
Yugoslavia	1	0	4	48
Zimbabwe	1	0	0	1
Total	4,806	5,329	5,402	9,456

Table 23.—TRADEMARKS REGISTERED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES

(1979-1982)

Country	1979	1980	1981	1982
Argentina	6	4	14	6
Australia	38	29	52	40
Austria	28	20	32	16
Belgium	22	11	30	16
Brazil	17	9	22	21
Canada	257	180	288	378
Chile	0	1	1	0
China, Peoples Republic of	3	3	6	27
Colombia	3	1	2	0
Cuba	0	0	1	0
Czechoslovakia	3	3	4	1
Denmark	32	14	27	15
El Salvador	2	0	0	1
Finland	13	15	8	12
France	248	174	266	355
Germany, Federal Republic of	345	223	358	408
Greece	1	1	6	2
Hong Kong	31	19	52	33
Hungary	1	0	0	1
Iceland	2	0	2	0
India	1	0	0	2
Ireland	10	2	6	7
Israel	6	3	6	14
Italy	137	98	155	194
Jamaica	1	0	0	0
Japan	231	137	271	335
Korea, Republic of	11	3	9	2
Kuwait	0	1	1	0
Lebanon	0	1	0	0
Liberia	0	0	1	0
Liechstenstein	5	3	3	9
Luxembourg	0	1	0	1
Mexico	35	20	18	20
Monaco	0	1	1	0
Netherlands	70	21	51	36
New Zealand	6	8	19	14
Norway	5	5	2	7
Panama	1	1	4	6
Peru	2	0	2	0
Philippines	1	0	0	1
Portugal	8	2	2	4
Romania	1	0	3	1
Saudi Arabia	0	2	0	0
Singapore	0	1	0	0
South Africa	20	7	20	9
Soviet Union	7	1	5	1
Spain	58	46	54	76
Sweden	55	40	52	91
Switzerland	109	66	123	144
Taiwan	1	2	3	4

Table 23.—TRADEMARKS REGISTERED BY THE UNITED STATES TO RESIDENTS OF FOREIGN COUNTRIES—Continued

(1978-1981)

Country	1979	1980	1981	1982
Thailand	1	0	0	0
Turkey	1	0	0	0
United Kingdom	263	144	225	183
Venezuela	4	0	1	5
Yugoslavia	1	0	0	0
Total	2,103	1,323	2,208	2,498

Table 24.—SUMMARY OF SERVICES FURNISHED TO THE PUBLIC AND GOVERNMENT AGENCIES

(For a Fee or Without Charge)

Item Service Furnished	Totals
ASSIGNMENTS[1]:	
Abstracts of Title	927
Certified Copies of Documents	11,860
Documents Recorded	89,521
Photo Copies Prepared	20,327
Title Reports	22,132
Transfers of Records from Pending to Public Files[2]	47,006
CERTIFIED DOCUMENTS[3]	91,256
DRAFTING:	
Accomplishments by P.T.O. Draftsmen:	
Drawing Sheets Inspected	427,992
Total Drawings Sheets Corrected[4]	10,574
Lost Drawings Replaced	409
Drawings and Corrections	6,637
Accomplishments by Bonded Draftsmen:	
Corrections Requested	4,152
Corrections Completed	2,508
Ending Inventory	1,644
PATENT AND TRADEMARK COPIES SUPPLIED:	
National Archives[2]	178,572
Foreign Exchange Programs[2]	2,279,628
Depository Library Subscriptions	1,071,432
Orders Received from the Public	2,684,390
Total Copies Supplied	6,214,022
PATENT AND TRADEMARK PAGES REPRODUCED[5]	20,975,781

[1] Briefs of all legal documents recorded against a specific patent or trademark property.
[2] Without charge.
[3] Copies of patent and trademark official file wrapper copies.
[4] Corrections to patent and trademark application drawings.
[5] To fill orders for copies of patents and trademarks.

Table 25.—ACTIONS ON PETITIONS TO THE COMMISSIONER OF PATENTS AND TRADEMARKS

(During Fiscal Year 1982)

Nature of the Petition	Totals
PATENT MATTERS	
Acceptance of:	
Amendments Filed After Payment of Issue Fee	107
Late Assignments	39
Late Issue Fees	681
Late Priority Papers	92
Access	77
Certificates of Correction	7,379
Deferment of Issue	86
Filing Date	253
Interference	76
Make Special:	
Infringement	155
Manufacture	16
Other	629
New Notice of Allowance	122
Public Use	2
Reexamination Proceedings	60
Reissue in Divisions	9
Restriction	75
Revivals	1,489
Rule 47 (37 CFR 1.47)	784
Second Extensions of Time	8,698
Supervisory Authority	409
Withdrawal of Attorney	1,781
Withdrawal from Issue	148
Change of Inventorship	9
Withdrawals of Holding of Aband/Pat. Lapse	701
Total Actions on Patent Petitions	23,877
OTHER RELATED PATENT MATTERS	
Applications Involving the Duty of Disclosure:	
Receipts	141
Disposals:	
Abandoned	103
Not Stricken	26
Not Rejected Under 37 CFR 1.56(d)	15
Stricken	3
Applications Withdrawn	0
Total Disposals	147
Protests Filed in:	
Original Applications	13
Reissue Applications	34
Total Protests Filed	47
TRADEMARK MATTERS	
Acceptance of Late Filed:	
Fees (Excluding Section 8)	3
Papers (Excluding Section 8)	21
Decision by Examiner	5
Extensions of Time	12
Interferences	3
Make Special and Revive	1
Requesting Recordation in Assignment Division	18
Restore Jurisdiction to Examiner	1
Sections 8 or 15	19

Table 25.—ACTIONS ON PETITIONS TO THE COMMISSIONER OF PATENTS AND TRADEMARKS—Continued

(During Fiscal Year 1982)

Nature of the Petition	Totals
Supervisory Authority (2.146(a)(3))	23
Miscellaneous	16
Total Actions on Trademark Petitions	122
PETITIONS AWAITING ACTION AS OF 9/30/82:	
Patent Matters	758
Trademark Matters	32

Table 26.—CASES IN LITIGATION

(Selected Courts of the United States)

Courts of the United States	Adminis. Review	Pat	TM	Total
SUPREME COURT				
Petitions for Writ of Certiorari				
Cases Pending as of 9/30/81	0	0	0	0
Cases Filed During FY 82	1	0	0	1
Total	1	0	0	1
Disposals:				
Denied	0	0	0	0
Dismissed	0	0	0	0
Granted	0	0	0	0
Affirmed	0	0	0	0
Total Disposals	0	0	0	0
Total Cases Pending as of 9/30/82	1	0	0	1
COURTS OF APPEALS FOR THE DISTRICT OF COLUMBIA				
Cases Pending as of 9/30/81	3	2	0	5
Cases Filed During FY 82	3	1	0	4
Total	6	3	0	9
Disposals:				
Affirmed	1	0	0	1
Dismissed	3	1	0	4
Reversed	1	0	0	1
Remanded	0	1	0	1
Total Disposals	5	2	0	7
Total Cases Pending as of 9/30/82	1	1	0	2
DISTRICT COURTS FOR THE DISTRICT OF COLUMBIA				
Cases Pending as of 9/30/81	2	10	0	12
Cases Filed During FY 82	6	6	0	12
Total	8	16	0	24
Disposals:				
Affirmed	0	0	0	0
Dismissed	6	2	0	8
Reversed	0	1	0	1
Affirmed-in-Part	0	0	0	0
Remanded	0	2	0	2
Total Disposals	6	5	0	11
Total Cases Pending as of 9/30/82	2	11	0	13

Table 26.—CASES IN LITIGATION—Continued

(Selected Courts of the United States)

Courts of the United States	Ex Parte		Inter Partes		Total
	Pat	TM	Pat	TM	
COURT OF CUSTOMS AND PATENT APPEALS					
Cases Pending as of 9/30/81	57	3	15	12	87
Cases Filed During FY 82	72	6	15	21	114
Total Receipts	129	9	30	33	201
Disposals:					
Affirmed	48	2	13	9	72
Affirmed-in-Part	5	0	0	0	5
Dismissed:					
Appellant's Motion	15	0	2	3	20
Appellee's Motion	0	0	0	0	0
Joint Motion	8	1	0	3	12
Want of Prosecution	0	0	0	0	0
Remanded	7	1	0	2	10
Reversed	14	2	4	1	21
Writs of Mandamus:					
Denied	2	0	0	0	2
Granted	0	0	0	0	0
Dismissed	0	0	0	0	0
Total Disposals	99	6	19	18	142
Total Cases Pending as of 9/30/82	30	3	11	15	59

Notices of Appeals to Court of Customs and Patent Appeals received 10/1/81-9/30/82:

- Ex parte patents and trademarks ..... 95 (16) not perfected
- Inter partes patents ..... 17 (1) not perfected
- Inter partes trademarks ..... 32 (3) not perfected

Table 27.—CASES IN LITIGATION

(Other Jurisdictions-Reported Cases)

Month	Patent Suits				Trademark Suits			
	Filed	Pat's Involved	Decs.	Pat's Involved	Filed	TM's Involved	Decs.	TM's Involved
October 1981	38	63	14	16	59	194	12	35
November	45	61	12	13	37	104	18	42
December	51	79	13	17	57	148	24	57
January	33	74	15	18	49	179	21	46
February	39	79	15	16	39	134	13	31
March	42	67	23	46	66	238	37	116
April	57	67	18	22	59	183	25	77
May	42	76	16	25	73	247	40	107
June	43	65	27	42	60	253	20	51
July	46	66	11	13	78	323	27	81
August	41	71	18	34	48	187	29	134
September 1982	56	82	17	29	48	148	17	50
Totals	533	850	199	291	673	2,338	283	827

ADDITIONAL QUESTIONS OF SENATOR LEAHY AND RESPONSES OF GERALD J. MOSSINGHOFF

Question.—In 1981, it was taking on average one year for the first two steps of the patent process: Pre-examination (just getting the application into the system and to the patent examiner) and the initial examination itself, including issuing the first opinion to the applicant. It then took another six months for the applicant to reply to the first opinion. The remaining delays accounting for the 24 months that it took to process a patent were evenly distributed among the examiner's reconsideration of his opinion, the post examination process, and final issuance of the patent.

Once the system is computerized by 1987, what are the projected times to accomplish each of these steps that will result in shortening the pendency time from the current 27 months to your goal of 18 months?

Pre-examination	Examiner's reevaluation
Initial examination	Post examination process
Response by applicant	Issuance of patent

Answer.—*Patent Application Pendency.*—We project that the goal of 18 months' pendency time will be composed of the following approximate average increments:

	Months
Pre-examination	1.0
Initial examination	4.0
Response by applicant	3.0
Examiner's reevaluation and subsequent applicant response as necessary	6.4
Applicant payment of issue fee	1.6
Issuance of patent	2.0
Total	18.0

We will achieve our goal of 18 months' pendency time primarily through the hiring of additional examiners in fiscal years 1982 through 1985. The major impact of fully automating the Office, which we plan to achieve by 1990, will be to improve the quality of the patents we issue by providing 100 percent integrity of our patent search files.

Question.—Your goal for trademarks is to reduce the backlog so that by 1985 final action on a case will take only 13 months. You confidently predict reaching that goal at least by 1985, given a current rate of reduction of 2 months each year.

However, in your annual report for fiscal year 1981, the pendency time was 24 months. Since that time, while the number of staff has been increased, so has the number of applications, to a record of 73,000 applications in fiscal year 1982. The number of new applications per staff has actually increased since 1981. At a reduction rate of 2 months per year, you will not reach your stated goal until 1987.

What accounts for your optimism on improving trademark processing times?

Answer.—*Trademark Pendency.*—The number of trademark applications set a record of 73,621 in fiscal year 1982. This was an unusual event which reflected the applicants' effort to avoid the higher fees of fiscal year 1983. Nearly 17,000 applications were filed in September alone. The number of applications filed in fiscal year 1983 has been particularly depressed as a result of the application "dump" at the end of fiscal year 1982. Overall, we anticipate that the number of trademark applications filed in fiscal years 1983 and 1984 will be close to the current budget estimates of 60,800 and 63,800, respectively.

As examiners gain in experience, production per examiner increases dramatically. An examiner with four years of experience, for example, can dispose of more than three times as many applications as a first year examiner. With the substantial increases in the number of examiners in fiscal years 1980 through 1983, production should start to increase significantly as more examiners become more experienced.

Question.—Your timetable for actions on patents calls for an end to the growth in the backlog by 1984 and then gradual reduction of the pendency time through 1987 to reach 18 months, down from a current peak of 27 months. 1987 also marks the end of your planned staff increases and the completion of the automation of the patent process.

What manpower savings are you estimating from the computerization of the process that will permit the stabilization or even continued reduction on pendency times after 1987, assuming continued growth in the number of applications filed per year? If not the computer, what is being planned to prevent the reoccurrence of the long backlogs that have plagued the patent office in these past years?

Answer.—*Automation Impact on Patent Examination.*—We do not now have sufficient information with which to estimate manpower savings anticipated to result

from automation of the patent process. We expect to receive additional information from the systems integration contractor later this year. We then plan to review and analyze this information to achieve a better understanding of where automation will permit manpower savings. As we proceed to implement the automation plan and gain actual performance experience, we will be better able to identify the extent and timing of savings to be realized.

In the professional examination process, the automation effort is intended to improve quality by insuring a fully integrated and retrievable data base. Consequently, the number of examiners required will not be reduced. Manpower savings to be realized will, for the most part, occur in the patent process support and pre- and post-examination operations which incorporate the types of functions to be automated.

We are assuming for the present that our future workload will stabilize at approximately 107,000 applications per year. With the annual increase in the expertise and productivity of our new examiners, it will not be necessary to fill vacancies caused by attrition in the post-1978 time frame. Should the workload increase beyond the current plateau, we will only need to replace those examiners who retire or resign.

Question.—One of the principle legislative proposals for this year is the creation of a new "defensive" patent subject to a fee schedule to be developed by your office which will be less than the fees charged for full patents.

What fee level is your office considering for these new patents and will those fees reflect the same protections for small inventors that Congress required in setting the normal patent fee schedules?

Answer.—*Proposed Defensive Patent Legislation.*—We have not yet developed detailed estimates for defensive patent applications. The cost of processing those applications will be lower than the cost of a regular examination. When compared with the full examination, most of the examiner review and the associated clerical support will not be necessary.

The legislation proposed by the Administration states that maintenance fees will not be applicable to defensive patents. This fee reduction alone will save the patent holder $2,400 over the patent's 17 year life. It is our intention to establish a lower fee for small entity applicants, as provided in P.L. 97-247, to insure that fees will not serve as a disincentive to participation in the patent system.

Senator MATHIAS. Now I want not only to recognize Senator Leahy, but in further evidence of my high regard and respect for him, give him the gavel and turn the meeting over to him.

[Whereupon, Senator Leahy assumed the Chair.]

Senator LEAHY. Well, the chairman is saying he wants to leave and make sure I am stuck. Mr. Chairman, I would simply ask permission to submit a series of questions for the record for answer. I came over here only because I did not want you to be totally lonely at this august gathering.

Senator MATHIAS. You are welcome at all times.

Senator LEAHY. With that, using the dimly remembered power of chairmanship, I recess subject to the call of the Chair.

Senator MATHIAS. Well done.

[Whereupon, at 3:30 p.m., the subcommittee was adjourned.]

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