

## *Plant Patents*

By HARRY C. ROBB \*

I HAVE read with considerable interest the articles appearing in the February issue of "The Journal of Heredity" by Robert C. Cook<sup>1</sup> and the March issue of this JOURNAL by Robert S. Allyn embodying critical discussions of the Plant Patent Law. In view of my connection with the origination of this law and the practice involving the same since its enactment, I am moved to discuss certain of the questions raised in the hope that a better understanding may be had of this law.

It is recognized, as has been said, that plants are a very different subject-matter from that of patents which have been granted under the well-known patent statute, but it is believed that in the main, the practice under this new law will not greatly differ from the general patent practice.

There are, of course, a number of controversial points that have arisen and will arise concerning the new plant patent statute, but a study of the intent of Congress as evidenced in the reports of the committees of Congress, and the law itself, will explain many things, and will settle a number of points that are presented in the articles above referred to in the form of critical questions. All of these questions were not raised in Mr. Allyn's article herein discussed, and it is not deemed at all necessary to refer to many of them because a knowledge of the basis of the Plant Patent Law and its intended operation would afford satisfactory explanation alone. There is an old saying something like this: "If you must hammer, build something!" To attempt to belittle and ironically criticize a law sought to benefit the public at large, does not help matters, it seems to the writer.

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\* Patent Lawyer, Wash., D. C.

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Representation of a number of plant breeders has led the writer to believe that this law is the basis of long desired protection and is now much appreciated by horticulturists generally.

#### PLANT PATENT DISCLOSURES

There seems to be some idea that under the plant law, the plant should be described in such a way that it could be reproduced by anyone after reading over the patent. The framers of this law recognized the futility of such a thing in the face of the part nature plays in the production of new plant varieties. It was for this reason that asexual reproduction of the new variety was made an essential to the *right to a patent*, so that said variety might be preserved to mankind. Obviously, if the new variety and all its reproductions were destroyed, as suggested by one of the above mentioned authors, the patent granted for the same would become useless like many other patents voided for unknown public uses, etc.

The purpose of a full description in the plant patent specification is to enable identification of the variety and determination of infringements thereof.

Mr. Allyn stresses the supposed necessity for and the supposed value of describing the parentage of plants on which patents are issued. He is apparently, and perhaps very naturally, saturated with the theory of mechanical patents but we must necessarily adapt ourselves to changes in modern life and civilization. Plants are not machines and the conditions surrounding agriculture or horticulture are very different from those surrounding industry. The disclosure of the parentage may be helpful in identification, but it is doubtful, if the disclosure of the variety itself can ever be complete. Furthermore, the parentage of plants cannot be definitely determined in many or perhaps most instances. If a new variety of apple is the result of the cross-breeding.

of two identified trees, each of which is perhaps a hybrid of unknown origin, the question may be asked, of what possible benefit to the public is the disclosure of the parentage?

The law only requires that the invention itself shall be fully described and not the preceding art or genus and this applies to plant patents as well as to mechanical patents.

To specify in the patent the location of the original plant of the new variety, as suggested, is not only not necessary but may be an invitation to possible trouble, for it is not everyone who can build cages to preserve trees, etc., under lock and key. There is, of course, the same desirability of retaining the original tree as in the case of mechanical patents to retain the first reduction to practice or model of the invention, but nowhere is such information necessary in the patent document any more than in a mechanical patent.

Sometimes it is difficult to completely describe these plant novelties, especially where the novelty lies in such intangible characteristics as odor, peculiarity of flavor, etc. Comparison with known odors or flavors is helpful where this is possible. Where it is not, the law provides against such defectiveness, by requiring to be done only what is possible to describe.

The authors of the articles mentioned criticised rather severely a number of the patents which have been granted, doubtless overlooking the defects of the new practice and forgetting that the same defects existed in the early mechanical patents. For instance, one of these critics states that the Burbank patents describe carefully the characteristics of the fruit and trees but fail to suggest how they were produced. Mr. Cook, apparently a plant expert, goes far in the opposite direction and certainly correctly states in his article the answer to this criticism:

In most cases there is no possibility of a plant breeder being able to describe the process of making a new form

that can be relied upon to make the same form again. The breeder himself could probably not do this.

Besides, except for a few of the early crosses, Burbank never kept a record of the parentage of his plants. It was his theory that this is impossible and impracticable.

One of the claims of the Burbank patents is selected as an object of criticism because it "naively claims, 'The plum tree described, characterized by the early ripening period of the fruit, as shown'." but states that it does not show this period. It is not believed that the claim when properly read states that the period is shown. Perhaps if the comma were removed no objection would be made to the claim. Of course, the specification of this patent described as nearly as possible the time of ripening, not by month and date, it is true, for that would be absurd. That period differs in different localities and so the time is given relative to the ripening periods of the other well-known varieties. That is all that is necessary for a plant breeder.

The attack upon or criticism of the Patent Office and its Examiners relative to the failure to correct the disclosures in the plant patents is not entirely fair. Former Commissioner Robertson has been an ardent advocate of the plant law and has endeavored to administer it to best advantage. Whether or not the present Examiner in charge of the plant cases is a horticulturist or botanist, is beside the question because in the actual procedure the applications have always been referred to the "experts" of the Agriculture Department, and if censure is due because of the efforts of administration of the law under present governmental economies, the blame should be placed where it belongs always taking into consideration possible lack of knowledge of patent practice particularly as applicable to the new law.

It may further be said that counsel in patent causes are rarely experts in every line of industry which they undertake to represent and statements will occur in patents which may seem trivial and unnecessary and even at times incorrect.

It is also a fact that the Examiners of the Patent Office who handle chemical and electrical cases are not actual chemists or electrical engineers in the majority of instances, excepting as they may be made such by the grant of diplomas for pursuing a study of the branches of these sciences. The majority probably never had any practical experience along the actual lines examined by them.

It would be ideal to have a special division of the Patent Office devoted to the plant patents but such is obviously impractical at this time, however much it may be and is desired. Divisions of the Patent Office are obliged to examine thousands of cases in a year and not less than one hundred as would be the case if a special division at this time was devoted to plant cases. The time may come, no doubt, when a special division headed by a skilled botanist will be required but at the rate plant patents are being secured this much desired end is not in sight.

The fact that a plant inventor is unable, or does not see fit, to use botanical names or highly scientific language in disclosing the invention would not be seized upon by a court of equity to invalidate the rights. Patent documents are intended to be neither literary compositions, scientific discourses nor highly technical papers. The law requires only a reasonable disclosure of the features of novelty of the invention or discovery itself so the public may avail of the invention when the monopoly expires, and, pending that time, recognize with fair accuracy the scope of the monopoly. So much for the disclosure of the plant patents.

As to the subject of plant patent claims, it may be said that no one knows how this law is going to be construed by the courts. Claims are being formulated and introduced into these patents, some by those unskilled in the general patent practice and unacquainted with the difficult problems of claim drafting or scope of claims, and some by skilled practitioners who are more or less guardedly submitting their claims in the light of the restric-

tions of the Patent Office until tests of the propriety of these restrictions have been made. The writer does not approve of the Patent Office restriction to a single claim and from the beginning argued against it, but until this matter can be settled at the instance of an applicant willing to make the test, the restriction must be abided by. As is well known, courts will not decide a moot question.

However, one thing is certain and that is that the law was intended to cover new varieties of plants, not the blossoms, fruit, or nuts thereof. These features may be in any instance the evidence of the novelty and hence it is proper to claim the plant by the characteristics of distinctiveness shown by these products. These characteristics may be set forth in the claims or the latter so drafted as to refer back to the specification for said distinctions. In this latter respect, the plant patent claim is like the design patent claim, under present practice. I am unwilling, however, to concede that in a plant case the patentee must be limited to the extent that the infringing plant must be a Chinese copy or reproduction of the patent disclosure. Many things may be done to affect certain characteristics of reproduced plants and as the committee report states "allowance must be made for those minor differences in characteristics commonly called fluctuations, which follow from variations in methods of cultivation or environment and are temporary rather than permanent characteristics of the plant." Of course, it must be understood that the infringing plant will necessarily be a propagated reproduction of the original patented plant. There is much misunderstanding of this phase of the law. Simply because I cross a Paul's Scarlet with a Gruss an Teplitz, I cannot, by securing a patent for the result, prevent someone else from crossing these same varieties, for nature does not twice perform exactly the same and the product would be recognizably different, certainly in some of the various features, I believe.

This practically answers the question as to why the claim in Plant Patent No. 10 is the same as the claim in Patent No. 1. The everblooming characteristic bred into the variety of Patent No. 10 is a novelty differing widely from the variety of Patent No. 1. The grant of Patent No. 1 could not preclude the grant of a second everblooming plant patent. No one is entitled to a monopoly for everblooming habits, as they existed long before the law. The language of the claims is the same because in both these instances one has to refer back to the specification for the particular distinctions.

The patentee of Plant Patent No. 10 sought and was entitled to a sub-claim for a red everblooming rose without question, but under the ban of the then Commissioner of Patents who insisted on the single claim practice, this was not granted.

It will be understood from the foregoing, therefore, that no interference could have been set up in these two patent cases, because they were not for the same invention, a requirement of interference practice with which Mr. Allyn is well acquainted. He also knows that design patent claims are all the same insofar as language is concerned, the plant patent claim differing only slightly from the design type. Ultimately, I hope it may radically differ therefrom.

The sale of the fruit of a tree which is patented is not an infringement of that patent, any more than the sale of a product of a process patent is an infringement of the latter. One of the writers referred to above has properly stated this phase of the law.

#### JOINT INVENTIONS

In certain of plant patent specifications there seem to be indications that because one of two or more parties asexually reproduces the new variety, such reproducer becomes a joint inventor. It is true that the law requires asexual reproduction as a basis for the grant of a patent

but the mere act of reproduction does not involve inventorship. Many discoverers and originators of plant varieties would not know how or would not care or be equipped to propagate plants and under such conditions would have a perfect right to have others reproduce the plants, and this without making such reproducer a party to the discovery or invention.

#### BUD MUTATIONS OR SPORTS.

At this point it seems proper to discuss patenting of bud mutations or sports especially in view of Mr. Cook's apparent astonishment "that the Patent Office has been willing to include as an 'inventor' a person who has not even *gone out and looked for the new form.*"

Mr. Allyn also apparently questions the patenting of sports, because "the asexual reproduction of a sport does not require invention." This overlooks the fact that at the time of the adoption of the Constitution and the passage of the first patent act the term "invent, invention or inventor" were synonymous with "discover, discovery or discoverer," and "to find" and "find out or discover." This fact was seriously considered by the House and Senate committees and duly reported to Congress.

It may be helpful at this point to consider the broad purposes of patent laws. They are not enacted principally for the benefit of the patentees, but for the benefit of the public. The inventor or discoverer is granted a monopoly. The owner of a sport starts out with a monopoly. It is his property and he enjoys all the rights of ownership. It may be the most remarkable specimen that has ever come to light. It may be a fruit that would be instantly accepted by a grateful public. Its propagation and wide distribution might be of inestimable public benefit. Nevertheless it is the absolute property of John Doe. No one can deprive him of that property. It cannot be taken even for public use without compensation. His property is protected by the Constitution. He may



destroy the sport. It is a gift of nature, yes, but not a gift of nature to mankind, generally. It is private property. Its status is similar to that of the ordinary invention when resting in the mind or files of the inventor. The principal question of policy from the standpoint of the public is: how can we break down this private monopoly and secure a supply of these trees or plants? The danger is not that the owner shall have a monopoly for 17 years, but that this sport which the public needs will be withheld, pruned off, or destroyed. The owner may recognize its desirability but from incompetence, indifference or discouragement, may decide that he will not propagate it. The House Committee on Patents fully realized this, and lamented that "many varieties of apples equally as valuable as the McIntosh and the Greening have undoubtedly been created and disappeared beyond human power of recovery because no attempt was made to asexually reproduce the new varieties." The Committee also pointed out that this law "proposes to give the necessary incentive to preserve new varieties."

That sports are within the scope of the bill is indicated by the following line which is found in both the Senate and House Committee reports: "These cultivated *sports*, mutants, and hybrids are all included in the bill." It is impossible to find a clearer expression of the legislative intent. Mr. Allyn apparently fails to see any basic difference between what he terms "mere finds" and a sport which he describes as "nature's sport." Congress did not exclude "mere finds." Whatever the meaning of the word "mere," as there used, it should be remembered that both committees stated that the bill excluded (not "mere finds") but "a *wild* variety, a *chance* find of the plant *explorer*."

Consider on the one hand that the orchardist discovers that one of his trees has developed a sport of perhaps unusual value (provided only that he is protected from piracy if he attempts to put it on the market). That sport, and the tree from which it springs, and the land upon which it grows are all his, and the fate of the sport,

with its attendant public consequences, depends solely upon his sole judgment and decision. He may prune and destroy, or propagate and preserve. On the other hand, "a *wild* variety, the chance find of the plant explorer," (as distinguished from "these cultivated sports" which "are all included in the bill") is not the subject of such ownership, and their fate does not depend upon the sole judgment of the orchardist, and the exigencies of orcharding. The "chance find of the plant explorer," the "wild variety," may be rejected by one observer, who passes on. It is there for those who follow him. Any member of the public may reject it or preserve it. Not so with a cultivated tree on private property. This exclusion of a "wild variety," the Committee points out, "is in no sense a limitation on the usefulness of the bill to those who follow agriculture or horticulture, and who are permitted under the bill to patent their *discoveries*."

Certainly it cannot be urged that a sport is less valuable to the public than a hybrid. Considering then the end in view, which is the ultimate benefit to the public, and considering the fact that both hybrid and sport are originally private property, there is no sound reason for inducing the owner to part with one and not the other. In neither case has a member of the public the faintest shadow of a right to the plant, whether it is an experimental hybrid or a "gift of nature," and in either case, if the public is to benefit by obtaining a supply, it is necessary to provide some reasonable incentive for the owner to relinquish his natural and complete monopoly and give it to the world. Only those who hope to reap the reward of another's enterprise can complain of the reward which Congress has offered to the owners of these plants. They had nothing to begin with. They are merely prevented from reaping where another has sown. Their "loss" is more than offset by the public gain. Heretofore, as pointed out by the Committee, plant developers "have been helpless against this form of piracy." The profession does not express any solicitude for the few who wish to continue the practice.

## DUPLICATION OF SPORTS

It is possible that from time to time some sport, or for that matter, hybrid may, for most practical purposes, so closely resemble a patented plant that it would appear to be a duplicate. What happens then from the standpoint of novelty and infringement? Plant No. 1 is patented. Plant No. 2, the so-called duplicate, is simply not a new and distinct variety and may not be patented. We are here ignoring the fact that there may be a number of minor points of distinction which from the standpoint of the public interest in the fruit or flower, or other outstanding characteristics, are of little interest or importance. In the world of competition the owner of the patented plant usually gives to the variety a trade name. In this way, in addition to his exclusive right to propagate afforded by the patent, he adds to his protection, because the exploiter of the unpatented Plant No. 2 would have no right to adopt the same name or otherwise appropriate the efforts and expenditures of the developers of Plant No. 1.

So far as the question of possible accusation of infringement of the patent is concerned, the owner of the unpatented plant has the defense by way of proof that his variety is not a propagation of the patented plant.

Now, of course, if a propagator can independently (with the assistance of nature) produce a duplication of a patented variety, he is free to do so, but the patent law has prevented the flagrant piracy and hijacking of horticultural developments that heretofore discouraged all but the few incorrigible optimists. They can no longer openly appropriate another's labor and expenditures. They may, by all fair methods develop their own plants and build up their own business. This may be in the public interest. The continual threat (amounting to 100% certainty) of piracy under the old system effectually prevented substantial progress in this field of endeavor. That, emphatically, was not in the public interest. The Congressional Committee reports are clear on this point.

Many other questions may have to be answered sooner or later. That is no objection whatever to the law. If the progress of civilization had to await until authoritative answers could be supplied to the doubting, the pessimistic, the imaginative and the sincerely interested, we would still be in the dark ages. When we consider the progress this country has made since the enactment of the Patent Law in 1790 notwithstanding the false accusations and statements of the so-called technocrats we are probably to be congratulated that no one was able to propound to the Patent Office and to Congress all the troublesome questions concerning the application and interpretation of that law that have since been considered by the courts. A mere statement of these problems and the legal bibliography built up as the result thereof the past hundred years would have staggered Congress and would have deterred it from setting sail across this unknown and stormy sea.

The country owes its success to the experimenter—the one who does not know in advance the exact answer to every problem, but who patiently attempts to achieve a result. He cannot anticipate and avoid every difficulty, but he attempts to surmount them when they appear. Is the patent profession to be less forward looking than its clients? Is it to demand a complete answer to every problem before it agrees to carry on for the public good? Is the profession to fear the unknown future merely because it has no cases on all fours? On the contrary, it is confidently expected that it will uphold its traditions and forward, rather than obstruct the beneficent purposes of such a statute. It is hoped that its criticisms, when offered, will be constructive, and intended to forward the purpose of Congress to produce, if possible, as remarkable progress in agriculture and horticulture as has been seen in the industrial field since we took the first step in the direction of patent protection over 100 years ago.

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In spite of my suggestion above relative to the lack of objection to the law there has just been introduced into Congress by a representative from the State of Texas a bill (H. R. 5392) to repeal the existing Plant Patent Law. The basis of the backers of this bill for objection to it is the old one of creation of monopolies, the same howl that has always been raised by those few of the general public who desire to profit by the efforts and work of others. Apparently those who advocate this bill on the above ground have not discovered that patent monopolies have been in existence for over a century in this country and the grant of these temporary monopolies has not yet destroyed industries. There could be absolutely no valid objection to the monopolistic characteristic of the Plant Patent Law any more than to the general patent statutes governing the grant of mechanical, electrical and chemical patents. The fact that certain varieties of unpatented roses sell at five cents wholesale which may as in many cases retail for 35 or 40 cents and that rose bushes covered by patents sell for one dollar and fifty cents to two dollars each retail does not place these two roses in competition and the law was not intended to do so. The public will have its cheap patented roses when the reward of the originator has been paid in the form of the returns he may acquire during the seventeen years of the grant. This repealing bill will obviously lose its force and effect when the great public benefit derived by the Plant Patent Law is understood.