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Note

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I. INTRODUCTION

Three broad requirements must be satisfied in order to obtain a patent. The inventor must show that his invention is novel, useful, and a nonobvious development over the prior art. The subsections of section 102 of title 35 of the United States Code are designed to ensure that the requirement of novelty is satisfied. This Note examines the "public use" provision of section 102, which provides that an inventor shall not be entitled to a patent if "the invention was . . . in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States. . . ." The term "public use" has been broadly construed; it is clear that the statute applies both to public and hidden uses, whether made by the inventor himself or by others. A finding of public use negates the invention's novelty and will therefore either preclude the issuance of a patent or invalidate a previously issued one.

The major limitation to the public use statute is the judicially created experimental use exception, which allows an inventor to avoid the effect of the statute by showing that his use of the invention was experimental. The experimental use exception is thought to benefit both the inventor and the public for "it is the interest of the public, as well as himself [the inventor], that the invention should be perfect and properly tested, before a patent is granted for it."

4. 35 U.S.C. § 102(b) (1964). This section should be compared with § 102(a) which provides, in part, that a patent may not be granted if "the invention was known or used by others in this country . . . before the invention thereof by the applicant for patent." Section 102(a) is designed to ensure that only the original inventor may obtain a patent, while § 102(b) precludes a patent from issuing on an invention which has been in the public domain for a year prior to the filing of the application for that patent.
Cases often arise under section 102(b) because inventors frequently use their inventions in public more than one year before they apply for a patent. In these cases, the courts are usually required to rule on the defense that the use came within the experimental use exception. Unfortunately, holdings on this issue have been marked with confusion and inconsistency. It is the purpose of this Note to examine the problems underlying the difficulty faced by the courts in applying the exception, and to propose two means of alleviating these problems.

II. THE EXPERIMENTAL USE EXCEPTION IN GENERAL

Courts ruling on the applicability of the experimental use exception have used one of two approaches: Was the invention in its experimental stage at the time of its use, or, more simply, was the use itself experimental in nature? These two approaches are neither well defined nor mutually exclusive. Under the first approach, the experimental use exception is applicable to all uses made of an invention in its experimental stage, even if the purpose of the use was not experimental. The problem with this approach is that it requires a court to determine the point at which an invention passes its experimental stage. The courts' difficulty in making this determination is not


In Sperry Rand, the uses in question were public demonstrations. The court refused to find a public use, apparently on the grounds that the invention had not passed its experimental stage at the time of its demonstration. For a discussion of the Sperry Rand and Browning cases, see note 87 infra and accompanying text. For a discussion of public demonstrations generally, see notes 57-59 infra and accompanying text.

13. Several definitions of the point at which the invention passes its experimental stage have been proposed. It has occasionally been
surprising in light of the frequently recognized ineptness with which judges without technical background resolve abstract patent questions. A judge who does not thoroughly understand the invention in the first place is obviously in a poor position to determine whether the invention had passed its experimental stage at the time of its use.

Other courts have been less concerned with the question of whether the invention was in its experimental stage at the time of the use, but rather have sought to determine whether the inventor's use of the invention was experimental. This seems to be a more desirable approach, since it avoids the difficult determination of whether the invention was in its experimental stage at the time of its use. Moreover, this approach would permit the utilization of judicially cognizable subtests to further simplify the determination of experimental use questions.

III. THE SUBTESTS APPROACH

A. DEFINING THE SUBTESTS OF EXPERIMENTATION

Recognizing that judges are often ill-trained to pass on abstract patent questions, courts and commentators have developed certain judicially cognizable subtests to aid in the determination of the difficult and abstract question of whether the invention satisfies the section 103 requirement of nonobviousness. A stated that an invention passes this stage when it is "reduced to practice." Nicholson v. Carl W. Mullis Eng'r & Mfg. Co., 315 F.2d 532, 535 (4th Cir. 1963); Kayton, This Year (1966) in Patent Law, 35 Geo. Wash. L. Rev. 720, 727-28 (1967). However, this restrictive position has not been generally accepted, and several courts have expressly stated that experimentation may continue beyond a reduction to practice. E.g., Atlas v. Eastern Air Lines, Inc., 311 F.2d 156, 162 (1st Cir. 1962), cert. denied, 373 U.S. 904 (1963); General Motors Corp. v. Bendix Aviation Corp., 123 F. Supp. 506, 520 (N.D. Ind. 1954); see generally Pigott, The Concepts of Public Use and Sale, 49 J. Pat. Off. Soc'y 399, 413, 415 (1967). The leading experimental use case indicates that experimentation may continue until the invention is "perfect." Elizabeth v. Paving Co., 97 U.S. 126, 137 (1877). However, it is doubtful whether this verbalization should be taken literally since, as the Court recognized in a later case, an invention may never reach perfection. Smith & Griggs Mfg. Co. v. Sprague, 123 U.S. 249, 265 (1887).


15. These subtests include, for example, commercial success of the invention, long felt but unsatisfied demand, and professional approval.
somewhat analogous development has taken place in the experimental use area where courts have from time-to-time considered certain of the inventor's activities during his alleged experimentation as being significant or even determinative in the disposition of experimental use cases. However, these activities have not been formally recognized as subtests\(^\text{16}\) and it is seldom, if ever, that they are all discussed in a single case. It is proposed that the activities discussed below, as well as any others determined to be relevant, be formalized into a set of subtests to aid the courts in the more accurate resolution of experimental use questions.

1. **Inspection**

The purpose of experimentation is to ascertain how the invention will behave under a given set of conditions. Experimentation without inspection of the behavior of the invention would obviously be pointless. Thus, it is suggested that the failure of the inventor or his agent to inspect may be viewed as determinative of a public use. Although there is a paucity of authority on this point, one case does seem to treat the inventor's lack of inspection as determinative.\(^\text{17}\) Moreover, the absence of inspection was considered significant in several cases in which a public use was found, although it is not clear that the lack of inspection was determinative in these cases since other factors indicating a public use were also noted.\(^\text{18}\) In any event, no case has been found in which the experimental use exception was applied in the absence of inspection.

Although the lack of inspection may rightly be considered determinative, the converse is not necessarily true. If other factors indicate that the invention was beyond its experimental stage at the time of the use, the mere fact that the inventor did inspect will not be sufficient to make out an experimental use.\(^\text{19}\) Also, the inventor's "inspection" may only be that which is

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\(^{16}\) See generally Note, Subtests of "Nonobviousness": A Nontechnical Approach to Patent Validity, supra note 14, at 1170.

\(^{17}\) Cf. Note, Prior Art in the Patent Law, 73 Harv. L. Rev. 369, 383 (1959), where several of the proposed subtests are recognized as relevant factors.


normal for any hopeful seller in looking after his product,\textsuperscript{20} and thus may not be entitled to the weight usually attributed to a bona fide inspection.\textsuperscript{21}

Thus, under the proposed analysis, the absence of inspection would be determinative of a public use while its presence could be indicative of an experimental use. Since the presence or absence of inspection is a fact that is readily ascertainable, it has potential as a valuable subtest of experimentation.

2. Control

The inventor must retain control over his invention in order to carry on experimentation. The absence of control should therefore be determinative of a public use and the few cases which have considered this problem have generally so held.\textsuperscript{22} However, the presence of control would not be determinative of an experimental use since the inventor could, of course, retain control over his invention and still place it in public use. Thus, control, like inspection, is most significant in its absence.

A special problem arises when the inventor lacks sufficient testing equipment himself and must therefore transfer his invention to others in order to have it tested. Clearly the transfer of the legal ownership of the invention does not in itself preclude the application of the experimental use exception.\textsuperscript{23}

\begin{itemize}
\item \textsuperscript{21} See, e.g., Elizabeth v. Pavement Co., 97 U.S. 126, 133 (1877).
\item \textsuperscript{22} See, e.g., In re Blaisdell, 242 F.2d 779, 784 (C.C.P.A. 1957), where the court, in finding a public use, stated: "Not only did he not exercise control over the shims but, as well, he lost complete contact with them and was no longer concerned with experimental considerations as to those particular articles." But see Watson v. Allen, 254 F.2d 342 (D.C. Cir. 1958) (contrary decision on an identical use).
\item \textsuperscript{23} See, e.g., Elizabeth v. Pavement Co., 97 U.S. 126 (1877), where the Supreme Court stated that "[t]he use of an invention by the inventor himself, or of any other person under his direction, by way of experiment... has never been regarded as such a [public] use." Id. at 134.
\end{itemize}


The inventor's purpose in making the transfer must have been to have his invention tested. If a transfer is made for nonexperimental purposes, a public use will be found. Egbert v. Lippman, 104 U.S. 333 (1881). The fact that the transferee happened to use the invention experimentally will not change the result. See Tool Research & Eng'r Corp. v. Honoror Corp., 367 F.2d 449, 453 (9th Cir. 1966); Cataphote Corp. v. DeSoto Chem. Coatings, Inc., 235 F. Supp. 936, 939 (N.D. Cal. 1964), aff'd, 356 F.2d 24 (9th Cir.), cert. denied, 385 U.S. 832 (1966). If the inventor gives his invention to another for nonexperimental purposes, a public use can be avoided only if the inventor restricts the donee to
such a case, the inventor should not be penalized for his lack of testing facilities; the requirement of control ought to be satisfied if the inventor maintains sufficient contact with the testers to show his continuing interest in the experimentation. This interest could be shown, for example, by proof that the testers communicated the results of the experimentation back to the inventor.24

3. Status of Developmental Work

The fact that the inventor is developing, improving, or otherwise changing his invention may indicate that his use was experimental.25 On the other hand, absence of developmental work may indicate that the experimental period has ended.26 Since critical dates regarding the development of an invention may be gleaned from invention records27 or shown by actual changes made in the invention,28 the status of developmental work provides a useful and provable subtest.

It is doubtful, however, that a developmental work subtest should be considered determinative of either a public or experimental use.29 The fact that the inventor did not develop his

secret use at the time of the transfer. Piet v. United States, 176 F. Supp. 576, 582 (S.D. Cal. 1959). If the transferee makes a public use of the invention, this public use will terminate the inventor's right to a patent, Knoedler Mfg. Inc. v. Western Land Roller Co., 319 F.2d 599 (7th Cir. 1963), even if the public use was a breach of the transferee's obligation of secrecy. Lorenz v. Colgate-Palmolive-Feet Co., 167 F.2d 423 (3d Cir. 1948), noted in 17 Geo. Wash. L. Rev. 418 (1949).

24. Since in many cases the testing will be done gratuitously, it would be difficult or even impossible for the inventor to require the tester to report the test results, or even to restrict the tester to secrecy, in light of the potential liability for breach of an obligation of secrecy. See Boscarino v. Neo-Line Prods. Corp., 167 N.Y.S.2d 580 (Sup. Ct. 1957), noted in 3 Vill. L. Rev. 391 (1958).


29. Compare Elizabeth v. Pavement Co., 97 U.S. 126 (1877) (an experimental use was found even in the absence of developmental
invention during the use does not necessarily mean that the use was not experimental, since it may have been undertaken to determine if any further developmental work was necessary. Similarly, a lack of developmental work after the use does not necessarily imply that the use was not experimental, since the use may have shown that no further development was needed. Conversely, the mere fact that the inventor was still developing his invention during or after the use will not be sufficient to invoke the experimental exception, since if it were otherwise an inventor could stall for an undue period by continuing to make minor changes and improvements in his invention.

Thus, under the proposed analysis, the status of developmental work would not be determinative. Of course, some significance may be attached to the presence or absence of developmental work, especially in conjunction with other subtests. For example, an inventor's allegation that he inspected would be reinforced if he could show that further developmental work on the invention had resulted from the alleged inspection. On the other hand, developmental work after the use would obviously be of little significance if that work were not based on an inspection of the use.

4. Commercial Exploitation

Although it is clear that a commercial use of the invention is permissible if it is incidental to experimentation, it is also clear that when an inventor's commercial use of his invention

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rises to a level which has been termed commercial exploitation, the statute will terminate his right to a patent.\textsuperscript{35} This position is justified for two reasons: (1) since it is doubtful that an inventor would attempt to commercially exploit an invention still in its experimental stage, the presence of commercial exploitation will usually mean that the invention has passed its experimental stage;\textsuperscript{36} (2) commercial exploitation conflicts with the policy of section 102(b).\textsuperscript{37} For the same reasons, commercial exploitation provides the basis for the most accurate subtest. As a subtest, the presence of commercial exploitation is clearly determinative of a public use; its absence, however, although significant, has usually not been deemed sufficient in itself to invoke the experimental exception.\textsuperscript{38}

The commercial exploitation subtest is more difficult to apply than the others since commercial exploitation may occur in many different forms. Sales of the invention are perhaps the most common form. However, even in the absence of sales, it is clear that commercial exploitation may be found in the inventor's attempt to develop or promote a market for his invention.\textsuperscript{39} Thus, consumer tests, market tests, and public demonstrations are also potential forms of commercial exploitation. Since the line between an incidental commercial use and commercial exploitation is not easily drawn, it will be helpful to briefly analyze each of these potential forms of commercial exploitation.

(a) Sales

In general, the "on sale" provision of section 102(b) provides that the patent right will terminate if an invention is either sold or offered for sale more than one year before the application for patent.\textsuperscript{40} However, since it is clear that the experimental

\textsuperscript{35}. See, e.g., Aerovox Corp. v. Polymet Mfg. Corp., 67 F.2d 860, 862 (2d Cir. 1933).
\textsuperscript{36}. See In re Bertram, 88 F.2d 834, 837 (C.C.P.A. 1937). There may be a few exceptions to this general proposition. See authorities cited note 87 infra.
\textsuperscript{37}. See note 69 infra and accompanying text.
\textsuperscript{38}. See, e.g., Egbert v. Lippman, 104 U.S. 333 (1881); In re Blaisdell, 242 F.2d 779, 785 (C.C.P.A. 1957).
\textsuperscript{40}. E.g., Midland Flour Milling Co. v. Bobbitt, 70 F.2d 416 (8th Cir. 1934); Chicopee Mfg. Corp. v. Columbus Fiber Mills Co., 165 F. Supp. 307 (M.D. Ga. 1958). Courts have generally been reluctant to hold that
use exception also applies to the "on sale" provision, a sale or offer for sale incidental to an experimental use is permissible.

Although the "public use" and "on sale" provisions of section 102(b) are conceptually distinct, courts have often failed to recognize this distinction. This may be due either to the fact that the finding of a sale, although not necessarily an offer for sale, will usually a fortiori determine a public use, or to the fact that the "on sale" provision has, to some degree, become entangled in "the witty diversities of the law of sales and it may therefore be simpler for a court to proceed under the "public use" provision. In any case, sales or offers for sale may provide a helpful subtest of public use to the extent that they imply commercial exploitation. Thus, the court in Cataphote Corporation v. Desoto Chemical Coatings, Inc. was correct in noting that outright sale of the invention in a foreign country implied commercial exploitation and, therefore, a public use, even though foreign sales are not within the scope of section 102(b).

The context in which the sale or offer for sale was made must be considered in determining whether it implies commercial exploitation. The difference between an isolated sale of the invention to an individual and sales to the general public made an invention is "on sale" within the statute. See, e.g., B.F. Sturtevant Co. v. Massachusetts Hair & Felt Co., 124 F.2d 95 (1st Cir. 1941), cert. denied, 315 U.S. 823 (1942); Browning Mfg. Co. v. Brothers, Inc., 134 U.S.P.Q. 231 (D. Minn. 1962), aff'd, 317 F.2d 413 (8th Cir.), cert. denied, 375 U.S. 825 (1963); Redman v. Stedman Mfg. Co., 154 F. Supp. 378 (M.D.N.C. 1957), aff'd, 257 F.2d 867 (4th Cir. 1958). See generally Choate, "On Sale"—Review and Circumspection, 47 J. Pat. Off. Soc'y 906 (1965).


42. Thus, for example, the inventor may sell the product of an experimental machine or process. American Caramel Co. v. Thomas Mills & Bros., 149 F. 743 (3d Cir. 1906); Bryce Bros. Co. v. Seneca Glass Co., 140 F. 161 (N.D.W. Va. 1905).


45. McCreery Eng'r Co. v. Massachusetts Fan Co., 195 F. 498, 501 (1st Cir. 1912); National Cash Register Co. v. American Cash Register Co., 178 F. 79, 83 (2d Cir. 1910).

46. 235 F. Supp. 936 (N.D. Cal. 1964), aff'd, 356 F.2d 24 (9th Cir. 1966).

47. 235 F. Supp. at 940.
in the inventor's regular course of business may be germane.\textsuperscript{43} Advertising is also difficult to reconcile with an experimental use and therefore implies commercial exploitation.\textsuperscript{49} Finally, profit on the sale may also be evidence of commercial exploitation,\textsuperscript{50} although a profit incidental to an experimental sale is generally said to be permissible.\textsuperscript{51}

(b) Consumer Tests

The consumer test is another potential form of commercial exploitation. Such tests are usually used to determine the individual consumer's reactions to the invention by a systematic testing of a representative portion of the community. The invention is usually given, rather than sold, to the individuals to be tested. The inventor may have undertaken the test in order to develop or promote a market for his invention by exposing it to the public, in which case a finding of commercial exploitation is clearly justified. However, the purpose of the test may have been only to determine whether the invention possesses sufficient potential commercial value to justify patenting, which may be an experimental use.\textsuperscript{52} If both motives are present, a court will have to determine whether the use was "substantially"\textsuperscript{53} for the permissible purpose.

(c) Market Tests

A market test must be distinguished from a consumer test. The differences between the two are both quantitative and qualitative. In a typical market test, the inventor will go into limited production and openly sell the invention through normal


\textsuperscript{49} Cf. Smith & Davis Mfg. Co. v. Mellon, 58 F. 705, 706 (8th Cir. 1893).


\textsuperscript{51} E.g., Smith & Griggs Mfg. Co. v. Sprague, 123 U.S. 249, 256 (1887); Ushakoff v. United States, 327 F.2d 669, 672 (Ct. Cl. 1964).


\textsuperscript{53} Smith & Griggs Mfg. Co. v. Sprague, 123 U.S. 249, 256 (1887).
distribution outlets in representative geographical areas. The selling price will probably be that at which it is expected the invention will be sold if and when full production begins and therefore includes profit. The invention may be advertised and the test may continue for several months. The primary purpose of a market test is to determine whether the public will buy the invention in the market place although, at this stage, the inventor is probably also concerned with promoting a market for his invention by exposing it to the public. It is clear that a market test, or a consumer test that approaches market test proportions, is an experiment, and, therefore, cannot be brought within the experimental use exception.

(d) Public Demonstrations

A public demonstration, like a market test, may be an attempt on the part of the inventor to promote a market for his invention, in which case commercial exploitation is clearly present and a finding of public use is justified. Although several courts have so held, a recent decision has brought a public demonstration within the experimental exception, apparently on the sole ground that the invention was still in its experimental stage at the time of the demonstration.

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54. See George R. Churchill Co. v. American Buff Co., 365 F.2d 129, 133-34 (7th Cir. 1966), where the inventor had distributed more than 200 free samples of the invention to various jobbers and customers. Although this distribution had characteristics both of a consumer and market test, the fact that the samples were accompanied by claims of product superiority and price quotations and that sales had apparently resulted from the distribution would seem to provide sufficient justification for the court's finding that the distribution was "commercially-tinged" and therefore not an experimental use.


58. See Sperry Rand Corp. v. Bell Tel. Laboratories, Inc., 208 F.
is questionable on policy grounds, it would nevertheless seem 
unwise to rule out the possibility of a noncommercial public 
demonstration, which might arise if, for example, the inventor's 
purpose in holding the demonstration was purely academic or 
self-gratifying without any residual motive of commercial ex-
ploration.

B. THE SUBTESTS IN APPLICATION

The proposed subtests have thus far been discussed individu-
ally. In the usual case, however, the subtests will have a 
cumulative effect which should make the proper disposition of 
the case clearer. For example, it has been suggested that a 
public use may be found if the inventor either failed to inspect 
or lost control over his invention. However, the fact that the 
inventor did not inspect may buttress the conclusion that he lost 
control over his invention and, conversely, the fact that the 
inventor was not in control of his invention may buttress the 
conclusion that he did not inspect. Furthermore, under the pro-
posed analysis, no single subtest in itself would be sufficient to 
establish an experimental use, and therefore a court must view 
the inventor's alleged experimentation as a whole in order to 
find an experimental use. The two classic cases in the experi-
mental use area clearly demonstrate the cumulative effect of 
the various subtests.

In *Elizabeth v. Pavement Company*, the patentee had in-
vented a new type of wooden pavement. In order to test the 
pavement, he had laid a seventy-five foot strip on a public toll 
road. The Supreme Court found that this use was experimental 
and held the patent valid, even though the pavement had been 
general use on the toll road for six years prior to the in-
ventor's application for a patent. The Court noted that the in-
vventor had inspected the pavement almost every day during the 
alleged experimental period and had received no direct com-
ensation for the use of the pavement. However, as has been 
noted, there was no developmental work or changes made on

U.S.P.Q. 231 (D. Minn. 1962), aff'd, 317 F.2d 413 (8th Cir.), cert. denied, 

59. See note 87 infra.


61. 97 U.S. 126 (1877).

62. See *Aerovox Corp. v. Polymet Mfg. Corp.*, 67 F.2d 860, 862 (2d 
Cir. 1933). For a discussion of the *Aerovox* case, see text accompanying 
notes 73 & 74 infra.
the pavement during this period. The requirement of control presents an interesting problem in *Elizabeth* because in a sense, the inventor had transferred his invention to the public for testing. Although the Court did not directly discuss this problem, it seems clear that this transfer was justified by the fact that the inventor probably lacked sufficient testing equipment himself.\(^63\) Moreover, the inventor clearly satisfied the proposed test of control in the case of a transfer by his retention of an interest in the experimentation.\(^64\) Thus, even in the absence of developmental work, the inventor’s inspections, retention of control, and lack of commercial exploitation justify the Court’s application of the experimental exception.

In *Egbert v. Lippman*,\(^65\) the patentee had invented a new type of corset spring. He had given the spring to his fiancée several years before he had applied for a patent. The Court invalidated his patent on the grounds of public use, even though the spring had been used in a very private manner. In finding the public use, the Court emphasized the fact that the inventor neither inspected nor made any attempt to change or improve the spring during the years in which his fiancée had it. Although it was clear that the inventor had not commercially exploited his invention, the Court ruled that commercial exploitation is not indispensable to a finding of public use. As in *Elizabeth*, the Court did not directly consider the question of control. It is not clear from the opinion whether the transfer of the spring was necessary in order to test it. In any event, a conclusion that control for purposes of experimentation was absent could be justified by the fact that the inventor had apparently lost interest in the spring after its transfer to his fiancée. Of course, even if the inventor had retained control, the result would not necessarily be changed since the presence of control is not, in itself, sufficient to make out an experimental use.\(^66\)

*Elizabeth* and *Egbert* demonstrate the interrelationship of

\(^63\) The *Elizabeth* Court did note that “the nature of a street pavement is such that it cannot be experimented upon satisfactorily except on a highway, which is always public.” 97 U.S. at 134. See also *Adams v. Columbus Mfg. Co.*, 180 F. Supp. 921, 925-26 (M.D. Ga. 1960).

\(^64\) See 97 U.S. at 133-34.

\(^65\) 104 U.S. 333 (1881).

\(^66\) See text accompanying notes 22-24 supra.
the proposed subtests, and both decisions may readily be justified in terms of those subtests. However, in view of the completely noncommercial use made of the invention in *Egbert*, it is questionable whether the harsh result in that case was necessitated by the policy of the public use statute. Unfortunately, the doctrine that a public use may be found in the absence of commercial exploitation is well-entrenched, and thus cannot be removed by the use of subtests which purport to reflect the law as it stands. A different approach is therefore necessary to overcome the harsh result in *Egbert*.

IV. THE POLICY APPROACH—AN ALTERNATIVE TO THE SUBTEST APPROACH

Although there has been confusion in the past, today it is generally agreed that the policy behind section 102(b) is to pre-
vent an inventor from extending the period of his commercial monopoly by commercially exploiting his invention before his application for a patent. Evaluation of the uses of an invention in terms of this policy indicates that a use which commercially exploits an invention contravenes this policy and should therefore be found to constitute a public use, but that a use which does not commercially exploit the invention does not conflict with this policy and thus should not be found to constitute a public use. Under this "policy approach," the determinative question is simply whether the invention has been commercially exploited more than one year prior to the application for patent. The fact that the invention had passed its experimental stage at the time of the use and the fact that the use itself could not be characterized as experimental would be relevant only to the extent that they imply commercial exploitation.

Courts have generally rejected the proposition that a public use may be found only in the presence of commercial exploitation. Nevertheless, a few decisions, although not expressly recognizing this proposition, have included certain noncommercial, nonexperimental uses within the experimental use exception. These decisions may therefore be used as a basis for the adoption of the proposed policy approach.

In the well-reasoned case of Aerovox Corporation v. Polymet Manufacturing Corporation, Judge Learned Hand assumed that the invention in question had passed its experimental stage at

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70. This proposition has been substantially accepted. See cases cited note 69 supra.

71. The stage of the invention may be relevant since it is usually doubtful that an inventor would commercially exploit an invention still in its experimental stage. See In re Bertram, 88 F.2d 834, 837 (C.C.P.A. 1937).

72. See, e.g., Egbert v. Lippman, 104 U.S. 333 (1881).

73. 67 F.2d 860 (2d Cir. 1933).
the time of its use. However, he refused to hold that this fact was determinative of a public use and then distinguished permissible and nonpermissible post-experimental uses on the grounds of commercial exploitation:

In *Elizabeth v. Pavement Co.*, . . . it did not appear that . . . the inventor delayed for any other reason than to learn how well his pavement would wear; apparently it was already as good as he hoped to make it. At any rate we shall assume that an inventor may wait longer, may wait until he learns whether his invention is of enough value to justify an application for a patent. On this view he may test it, not only to put it in definitive form, but to see whether his ideas are worth exploiting.

But this added privilege has its limit. If in so doing he does in fact exploit the completed invention commercially he takes a chance that he may lose his patent.

A similar approach was applied in the earlier case of *Sinclair v. Backus*. There the inventor had permitted a friend to use his invention, an improved wrench, in order to induce him to help in procuring a patent for the wrench. In finding an experimental use, the court characterized permissible experimental activity as follows:

The question to be determined is not only whether the tool will work, but in what modes and with what advantages over old tools; how well it will work and how cheaply; and I am of opinion that he may, in such a case as this, test not only its patentability, but the degree of it, if I may so say; that is, whether it is worth while to patent it . . .

The *Sinclair* and *Aerovox* cases include within the experimental exception a use which may be roughly described as a "value test," i.e., the invention has passed its experimental stage and the use is made to determine whether the invention possesses sufficient potential commercial value to justify patenting. It is doubtful whether such a use could be brought within the experimental exception under the traditional law. How-

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74. Id. at 862.
75. Id.
76. 4 F. 539 (D. Mass. 1880).
77. Id. at 543.
78. See also Swain v. Holyoke Mach. Co., 109 F. 154, 158 (1st Cir. 1901) (dictum); Massie v. Fruit Growers' Express Co., 31 F.2d 463, 464-65 (D. Del. 1929); United States Rifle Co. v. Whitney Arms Co., 28 F. Cas. 819, 822 (No. 16,793) (C.C. Conn. 1877) (dictum), aff'd, 118 U.S. 22 (1886); cases cited note 52 supra.
79. For example, evaluation of the *Sinclair* case in terms of the proposed subtests would require a finding of public use. The inventor was not inspecting the wrench, but rather was ascertaining the reaction of the borrower to the wrench. Although the *Sinclair* court refused to draw a distinction on this point, most courts would hold this activity to be a "trader's, and not an inventor's, experiment." See, e.g., Smith
ever, when the policy approach is employed and the use evaluated in terms of the policy underlying the statute, it becomes clear that a value test does not offend this policy so long as it is unblemished by commercial exploitation. Thus, the result in *Sinclair* is justifiable since the inventor there did not commercially exploit his invention. While Judge Hand found a public use in *Aerovox*, this finding was based specifically on the patentee's commercial exploitation and is therefore not inconsistent with the policy approach.

The *Aerovox-Sinclair* rationale has recently been extended to a consumer test. In *International Silver Company v. Julie Pomerantz, Inc.*, the design patentee, through its advertising agency, had conducted the consumer test on its new silverware design. The agency had shown photographs of several different silverware designs to about one hundred people, who were asked to state which design they preferred. The photographs remained in the possession of the interviewer and were returned to patentee after the survey. On these facts, the lower court found that the use was experimental. The Second Circuit affirmed, noting that the purpose of the test was to determine consumer reaction to the new design.

It is doubtful whether this consumer test could be brought within the experimental use exception under traditional law.

& Davis Mfg. Co. v. Mellon, 58 F. 705, 707 (8th Cir. 1893). Although it is not clear from the opinion whether the inventor retained control over the wrench, it is clear that he had ceased developmental work on the wrench at the time of the use.

80. See *Aerovox Corp. v. Polymet Mfg. Corp.*, 67 F.2d 860, 862 (2d Cir. 1933).

81. For a discussion of consumer tests, see text accompanying notes 52 & 53 supra.


83. 119 U.S.P.Q. at 461.

84. *International Silver Co. v. Pomerantz*, 271 F.2d 69, 72 (2d Cir. 1959). The court of appeals apparently did not apply the experimental use exception but rather affirmed on the grounds that the photographs did not constitute a "use" of the design. This approach is questionable in that the photographs were certainly sufficient to expose the inventive concept to the public.

85. This is indicated by the proposed subtests. The inspection in *International Silver* did not relate to the invention itself, but rather to the consumer's reaction to the invention. See note 79 supra. Although both the district court and the Second Circuit emphasized the fact that the inventor's agents retained control over the invention during the test,
However, when the policy approach is used and the test evaluated in terms of the policy of the statute, it is reasonable to conclude that the test was not tainted with commercial exploitation, and the result in *International Silver* is therefore justifiable.

The *Aerovox*, *Sinclair* and *International Silver* cases would probably not support the broad proposition that any noncommercial use may be brought within the experimental exception. When the three cases are read together, however, they do support the more narrow proposition that any noncommercial use for the purpose of determining whether the invention possesses sufficient potential commercial value to justify patenting may be brought within the experimental use exception, whether or not that particular use may in itself be characterized as experimental. As such, these cases clearly represent an inroad on the doctrine that a noncommercial use may be a public use, and thus provide a starting point for the adoption of the proposed policy approach. While the above cases did not completely adopt the policy approach, there exist several reasons why it should be adopted *in toto*.

The most important reason for the adoption of the proposed policy approach is that it would provide a more accurate and realistic basis of decision in light of the policy of the statute. In some cases courts using the “stage of the invention” criterion have not accorded full effect to this policy. Such a situation is presented when the inventor commercially exploits his invention before it has passed its experimental stage. Since, under the “stage of the invention” criterion, no use of the invention before it passes its experimental stage will be a public use, this commercial exploitation is permitted to the detriment of the

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86. See note 69 *supra* and accompanying text.
87. In *Sperry Rand Corp. v. Bell Tel. Laboratories, Inc.*, 208 F. Supp. 598 (S.D.N.Y. 1962), the invention, a new type of computer, was extensively demonstrated to various groups, including the press. The court applied the experimental use exception to these public demonstrations, apparently on the sole ground that the computer had not passed its experimental stage at the time of the demonstrations.

In *Browning Mfg. Co. v. Brothers, Inc.*, 134 U.S.P.Q. 231 (D. Minn. 1962), aff'd, 317 F.2d 413 (8th Cir.), *cert. denied*, 375 U.S. 825 (1963), the invention, a soil compactor machine, was displayed at a “Road Show” to potential customers of the inventor. The court found that this display did not constitute a public use, although it is not clear
public. The policy approach would avoid this problem because commercial exploitation would always be sufficient to invoke the statute, and the fact that the exploitation occurred before the invention passed its experimental stage would be irrelevant. Thus, in this situation, adoption of the policy approach would contract the scope of the experimental use exception.

Another reason for the adoption of the policy approach is that several particular noncommercial, nonexperimental uses may be beneficial both to the inventor and the public and therefore should be made permissible. For example, allowing the inventor to determine whether his invention is worth patenting by means of a consumer or value test may save both the inventor and the Patent Office a good deal of time and money. A public demonstration may, in line with the constitutional basis for the patent system, "promote the Progress of Science and useful Arts" by facilitating the exchange of technical information.

Although the above factors operate in the interest of the public, it could be argued that adoption of the policy approach would prejudice the public because it would permit an inventor to delay his application for a patent, and thus increase the time interval before the public receives the benefits of the invention. Such would be the situation if the inventor made a non-

whether this finding was based on the grounds that the invention had not passed its experimental stage at the time of the display, or rather on the grounds that the machine was not actually "used" at the Show. In any event, a price for the invention was quoted at the Show. The court held that this price quotation did not place the invention "on sale" within the statute, and this holding was based on the grounds that the invention had not passed its experimental stage at the time of its display. In both the Sperry Rand case and the Browning case it is probable that the inventors were attempting to develop a market for their inventions by exposing them to the public, and therefore a finding of commercial exploitation is indicated. See cases cited note 57 supra.


89. Cf. Report of the President's Commission on the Patent System (1966), Recommendation III (1), where temporary protection for a display in "an official or officially recognized international exhibition" is recommended if necessary to comply with the requirements of the Paris Convention for the Protection of Industrial Property, June 2, 1934, art. 11, 53 Stat. 1748 (1939), T.S. No. 941.

90. Although some commentators have suggested that the policy of § 102(b) is to encourage prompt disclosure, e.g., A. Smith, Patent Law 312 (2d ed. 1964); Note, Public Use: The Inventor's Dilemma, 26 Geo. Wash. L. Rev. 297, 305 (1958), it is suggested that the reason for such encouragement is to prevent inventors from extending the period of their commercial monopoly by both pre-patent commercial exploitation and patent protection. See cases cited note 69 supra.
experimental, noncommercial use of his invention in public. Under the proposed policy approach, such a use would not come within the statute and thus the inventor would not be required to file his application within one year. However, it would seem that such a situation would occur rarely since the inventor, lured by the prospect of financial reward, will generally attempt to patent as soon as his invention is ready. Moreover, if the inventor does in fact delay for too long, he may be precluded from obtaining a patent under the abandonment statute or by the doctrine of constructive abandonment. If it is considered necessary to further preclude the possibility of undue delay, resort might be had to legislation or, in the alternative, to a broadening of the doctrine of constructive abandonment.

It should be cautioned that commercial exploitation may be a difficult criterion to apply because it may take many different forms, such as sales, public demonstrations, consumer tests, or market tests. In determining whether commercial exploitation was present in the inventor's use of his invention, it would be relevant to inquire into, for example, the inventor's purpose in the use, the people exposed to the use, the stage of the invention until the inventor did patent.

91. The public could, of course, make free use of the invention.


95. Of course, the inventor's subjective intent is not controlling, Swain v. Holyoke Mach. Co., 109 F. 154, 160 (1st Cir. 1901), and sometimes has been given little or no weight. See Renette Co. v. Ford Motor Co., 47 U.S.P.Q. 245, 246 (N.D. Ill. 1940). Still, ascertaining the inventor's intent may help to elucidate the true nature of the use. Well Surveys, Inc. v. McCullough Tool Co., 199 F. Supp. 374, 396 (N.D. Okla. 1961), aff'd, 343 F.2d 381 (10th Cir. 1965). Objective evidence of the inventor's intent may occasionally be found in invention records, see Well Surveys, Inc. v. McCullough Tool Co., 343 F.2d 381, 394 (10th Cir. 1965), or in other documents, see Elizabeth v. Pavement Co., 97 U.S. 126, 129, 133 (1877); Ushakoff v. United States, 327 F.2d 669, 677 (Ct. Cl. 1964).

96. Quantitatively, the number of people exposed to the use may be relevant in determining whether the use was a consumer or market test, possibly using the number of people needed to carry out a consumer test in the circumstances as a reference standard. Qualitatively, it would clearly be relevant to inquire whether the people exposed to a public demonstration or "consumer test" were randomly selected or were rather potential customers of the inventor. Compare International
vention at the time of the use,\textsuperscript{97} and any affirmative justifications the inventor may have for his use.\textsuperscript{98}

V. CONCLUSION

The use of subtests relating to the inventor's activities during his alleged experimentation has been proposed to aid courts in their resolution of complex experimental use questions. These subtests would merely reflect present law.

However, because present law is sometimes unjustifiably harsh, an alternative approach which would focus on the nature of the use has also been suggested. Under this "policy approach," the use which the inventor made of the invention would be evaluated in terms of the policy of the statute and, therefore, the presence or absence of commercial exploitation would be determinative. While the adoption of the policy approach would require the overruling of the doctrine that a public use may be found in the absence of commercial exploitation, its adoption should be seriously considered if it is desirable to bring experimental use decisions into closer accord with the policy of the public use statute.

An intermediate position is to employ the traditional law in making the original determination of whether the experimental use exception is applicable. The proposed subtests could, of course, be used in this determination. If, however, the inventor made some use of his invention which, under traditional law, would preclude the application of the exception, the policy approach could then be applied in order to allow the inventor to show affirmative justifications for such use. For example, the inventor might be permitted to prove that his use was noncommercial and motivated by a permissible purpose, such as an attempt to determine whether the invention possessed sufficient potential commercial value to justify patenting. Such an approach, although not requiring an immediate major break with precedent, would allow for the gradual expansion of the experimental use exception by the inclusion, on a case-by-case basis, of certain desirable post-experimental uses.


\textsuperscript{97} See note 71 supra.

\textsuperscript{98} See text accompanying notes 88 & 89 supra.