

to include the method claimed by respondent. These claims were rejected by the Patent Office as reading on the British Patent 178,442 of the present patentees, and the Greensfelder patent, already mentioned. However inconsistent this early attempt to procure a patent may be with petitioner's present contention of its invalidity for want of invention, this Court has long recognized that such inconsistency affords no basis for an estoppel, nor precludes the court from relieving the alleged infringer and the public from the asserted monopoly when there is no invention. *Haughey v. Lee*, 151 U. S. 282, 285.

Reversed.

MR. JUSTICE BRANDEIS took no part in the consideration or decision of this case.

ALTOONA PUBLIX THEATRES, INC. *v.* AMERICAN TRI-ERGON CORP. ET AL.*

CERTIORARI TO THE CIRCUIT COURT OF APPEALS FOR THE THIRD CIRCUIT.

No. 255. Argued February 5, 1935.—Decided March 4, 1935.

1. The bringing together of old elements in a mechanism involving no new principle, to produce an old result, however skillfully it be done, and even though the result mark an advance in efficiency and utility, is but an exercise of mechanical skill and not invention. P. 486.
2. It is the claims of a patent that define the invention. P. 487.
3. A deficient claim can not be aided by reading into it parts of other claims or of the specifications. P. 487.
4. A plain absence of invention is not overcome by evidence of utility and commercial success of the thing patented, even though the evidence indicate that a long-felt want was satisfied. P. 487.

* Together with No. 256, *Wilmer & Vincent Corp. et al. v. American Tri-Ergon Corp. et al.* Certiorari to the Circuit Court of Appeals for the Third Circuit.

5. Utility and commercial success are not persuasive evidence of invention where the want satisfied by the device patented was not long-felt or generally recognized at the time of the patent application but arose later as an incident to a subsequent advance in the art attendant upon the creation of a new public demand and upon the development of numerous devices not covered by the patent. P. 488.
6. Under R. S., § 4917, a patentee is not permitted to add by disclaimer a new element to the combination previously claimed, whereby the patent, originally for one combination, is transformed into a new and different patent for the new combination. Such a disclaimer is void. P. 490.
7. A patent amended by disclaimer speaks from the date of the original patent; a reissued patent (R. S., § 4916), with respect to the claim amended, speaks from the date of the re-issue. P. 491.
8. The filing of a disclaimer abandons the claims affected, and they can not be revived upon the ground that the disclaimer was invalid. P. 492.
9. Patent No. 1,713,726, issued May 21, 1929, to Vogt et al., for "a device for phonographs with linear phonogram carriers," *held* void for want of invention as to claims numbered 5, 7, 17, 18, and 19, relating to a combination apparatus for securing uniformity of speed in machines used for recording talking motion pictures, in which the gist of the invention claimed consists of the addition of a flywheel to the cylinder over which the film or ribbon passes near the "translation point" at which the sound is recorded upon or reproduced from it; also *held* void as to claim 9, originally allowed for the arcuate flexing of the film record, and claim 13, for a combination for projecting a narrow line of light upon and through the moving film to a photo-electric cell, both of which claims were invalidated by attempts to add the flywheel device by disclaimers. Pp. 480, 488.

72 F. (2d) 53, reversed.

CERTIORARI, 293 U. S. 528, to review the affirmance of decrees in favor of the present respondents in two suits brought by them for infringement of their patent. For the District Court's opinion see 5 F. Supp. 32. The cases were tried together and were brought here on a single record. One of the plaintiffs, American Tri-Ergon Corporation, claimed as owner of the patent. The other, Tri-Ergon Holding, A. G., claimed as licensee.

Messrs. Merrell E. Clark and Thomas G. Haight, with whom *Messrs. Charles Neave and Henry R. Ashton* were on the brief, for petitioners.

Mr. Thomas D. Thacher, with whom *Messrs. S. Mortimer Ward, Jr., Page S. Haselton*, and *Hugh M. Morris* were on the brief, for respondents.

MR. JUSTICE STONE delivered the opinion of the Court.

These cases come here on certiorari to review a decree of the Court of Appeals for the Third Circuit, 72 F. (2d) 53, which affirmed a decree of the district court, 5 F. Supp. 32, holding valid and infringed the patent of Vogt and others, No. 1,713,726, of May 21, 1929, applied for March 20, 1922, for a "device for phonographs with linear phonogram carriers." The two cases were tried together and have been brought here on a single record.

Petitioners, the defendants below, are operators of motion picture theatres whose sound reproduction machines are said to infringe certain claims of the patent in suit. The Radio Corporation of America is defending both cases on behalf of its subsidiary, R. C. A. Photophone, Inc., which supplied the petitioners' machines. Respondents, plaintiffs below, are a patent holding company and a licensee.

Of the nineteen claims of the patent, seven are in issue. Five of them, numbered 5, 7, 17, 18 and 19, relate to a device for securing uniformity of speed in machines used for recording and reproducing talking motion pictures, and are referred to as the "flywheel claims." They may conveniently be considered separately from Claims 9 and 13 which present the flywheel claims in a different aspect. Claim 9, as originally allowed, was for the arcuate flexing of the film record; Claim 13 similarly was for a combination for a means for projecting a narrow line of light upon and through the moving film to a photoelectric cell in

sound reproduction. A disclaimer, filed by respondent shortly before the trial, purports, in varying terms, to add the fly-wheel device to each of these claims.

While both courts below have found invention and sustained the patent, the Court of Appeals, as will presently appear in more detail, did not pass on the separate claims in issue, but found invention in a combination of elements not embraced in any single claim. In consequence, the case presents no question of concurrent findings by the courts below that the claims in issue severally involve invention, see *Concrete Appliances Co. v. Gomery*, 269 U. S. 177, 180.

The Flywheel Claims.

“Phonograms,” or sound records, for the recordation and reproduction of sound, are of several types. They include discs or cylinders to which, and from which, sound vibrations are transmitted mechanically by a stylus in the course of recording, and reproducing, sound. Long strips of waxed paper carrying sound record grooves, similarly made, are used. Other types are long strips of film on which sound is photographically recorded, and long steel wires on which sound variations have been magnetically recorded. The claims relate to an improvement in mechanisms for recording and reproducing sound by the use of linear photographic record carriers. The typical procedure in recording and reproducing sound by the use of photographic film strips is described in *Paramount Publix Corp. v. American Tri-Ergon Corp.*, decided this day, *ante*, p. 464, and need not be repeated here.

Both in recording and reproducing sound, by any form of record, uniform speed in the movement of the phonogram is of the highest importance, in order to secure evenness and regularity in the reproduced sound. The specifications state:

“The recording and the reproduction of sound waves by the use of linear phonogram carriers such as film strips,

steel wires, and so forth, can only be effected in absolutely satisfactory manner, even after the removal of all other occurring difficulties, when the speed of the record carrier is uniform both for the receiving and the reproduction, and when in both cases no variations of any kind occur. Especially in the case of musical reproductions is the record extremely sensitive to the slightest variations of speed."

They also point out that linear phonograms such as the photographic film, because of their lightness and their want of the momentum afforded by a revolving cylinder or disc record, are peculiarly susceptible to irregularities of movement caused by the play or friction in the projections and connections of the many parts of the propelling apparatus, and declare that:

"According to the present invention, this draw-back which attaches to all hitherto known propulsion mechanisms for linear phonogram records is obviated by the arrangement, that the light sound record has given to it at the controlling point the property of a weighty mass. This is attained by the arrangement that the record carrier (a film strip or the like) is firmly pressed against one or more rollers connecting with a heavy rotating mass, so that the record moves in exact conformity with the rollers and the rotating mass."

The references to a "weighty mass" or "a heavy rotating mass" used to secure uniformity of motion are to the familiar flywheel. The specified "property" of a rotating heavy mass is inertia, the tendency of matter in motion to continue in motion, the force of which is increased by the mass of the moving body. It is the property which gives to the flywheel its peculiar efficacy in securing uniformity of speed in mechanisms with which it is associated.

The first three flywheel claims, 5, 7 and 17, are apparatus claims. The others, 18 and 19, are, in form, method claims, defining the method of securing uniformity in

movement of the record film by apparatus defined by Claims 5 and 17. Claim 5 reads as follows:

“In phonographic apparatus in which the sound record is formed on an elongated ribbon of inconsiderable mass, having feeding perforations therein, the combination of

[a] means for supporting and progressing the record ribbon from one point to another point and past an intermediate point at which the record is made on the ribbon in recording or from which the record is taken from the ribbon in reproducing, including

[1] a toothed cylinder over a portion of which the ribbon passes adjacent to said intermediate point, the teeth of said cylinder engaging the perforations of the ribbon,

[2] a fly-wheel associated with said cylinder, and

[3] means for rotating said cylinder, under control of said fly-wheel at uniform speed.”

Claim 17 is substantially the same as Claim 5, the principal difference being that it uses the word “cylinder” instead of “toothed cylinder.”

Claim 7 adds to the essentials of Claim 5 “a resilient connection between said driving member [the shaft] and fly wheel, and stop means for limiting the amount of yielding of said resilient connection.” This so-called flexible or elastic flywheel connection, designed to overcome more gradually the inertia of the flywheel, and thus to secure an improved flywheel operation, was anticipated, among others, by the Constable Patent, U. S. No. 1,425,177, of August 8, 1922, applied for June 24, 1918, as the district court found. Its inclusion in Claim 7 may therefore be disregarded as adding nothing more to the present patent than the flywheel without it.

There is no serious contention, nor could there well be, that the combination apparatus, for moving the linear record past the translation point at which the sound is recorded or reproduced, involves invention without the flywheel. Mechanisms for moving linear strips, or rib-

bons, by passing the strip over a revolving drum or cylinder, are a familiar type in the arts. They have long been used in the motion picture industry when it was desired to employ the linear strips at an intermediate point for sound and picture reproduction, and the like. Such a mechanism, for moving a picture film past the translation point in a motion picture projector, is shown by the Holst Patent, U. S. No. 587,527, of 1897. A like mechanism for recording or reproducing sound, or both, by the use of linear photographic records, is shown in the British Duddel Patent, No. 24,546, of 1902, and the Reis Patent, U. S. No. 1,607,480, of 1923, filed May 21, 1913. Still other mechanisms, like two of the figures attached to the specifications of the patent in suit, show the translation point at the film-carrying cylinder. Examples are the patents of Bock, U. S. No. 364,472, of 1887; Byron, U. S. No. 1,185,056, of 1916; and Pedersen, British Patent No. 115,-942, of 1918. The gist of respondent's contention, as is shown by the claims and the parts of the specifications already quoted, is that by the addition of the flywheel to this familiar mechanism the patentees have succeeded in producing a new type of machine for recording and reproducing sound by the photographic film method. It is insisted that the new device, because of its greater accuracy and precision of film movement, is so useful and constitutes such an advance in the sound motion picture art as to entitle it to the rank of a patentable invention.

The flywheel set upon a revolving shaft is an ancient mechanical device for securing continuity and uniformity of motion when brought into association with any form of machinery moved by intermittent force or meeting with irregular or intermittent resistance.¹ So universal is its

¹ The addition of the flywheel to the steam engine, in 1758, was said to be "a very important addition to the engine, and though sufficiently obvious, it is ingenious and requires considerable skill and address to make it effective." Robison, *Mechanical Philosophy*, Vol. 2, p. 105, 1822.

use for that purpose in every type of machinery that standard treatises on mechanics, long before the application for the present patent, gave the mathematical formulae for ascertaining the appropriate weight and dimensions of a flywheel, moving at a given speed, required to overcome known variations in force resistance, and prescribed the standard procedure for locating the flywheel in as direct association as possible with that part of the mechanism at which the intermittent resistance occurs. See article, Mechanics, § 121, Encyclopaedia Britannica, Eleventh Edition, 1911; Angus, Theory of Machines, pp. 261-272, 1917.

The specifications of the patent recognize that disc and cylinder records themselves operate as flywheels and proceed to show how a want of a similar control may be supplied, in mechanisms used for motion picture film records, by the addition of the flywheel. But this was specifically taught by the prior art for the reproduction of sound both from phonographic and film records. There are in evidence two Edison commercial recording machines with cylindrical records, which were used at the Edison Recording Laboratory in New York before 1921. Each has a heavy flywheel mounted directly on the shaft of the record-carrying cylinder. These flywheels produce a high degree of "speed constancy." An application for a patent by Edison in 1879 on a claim for a combination "with the phonograph cylinder and its shaft, of a flywheel" was rejected by the examiner April 7, 1879, as covering the "use of a flywheel as ordinarily used with machinery for the purpose of securing uniformity of motion." Upon reconsideration the claim was again rejected on the ground that the adaptation of the flywheel required only the exercise of "ordinary good judgment" and not the inventive faculty.

The Underhill Patent, U. S. No. 995,390, of 1911, exhibits a phonograph machine with a flywheel to secure uniformity of motion of the record. The specifications

state that the flywheel is used for that purpose. The patent of Alexander Graham Bell and others (Bell & Tainter), U. S. No. 341,213, of 1886, discloses a mechanism for recording sound on a photographic plate rotated at uniform speed under the control of a flywheel. Another patent of the same inventors, U. S. No. 341,214, of 1886, discloses a flywheel used in association with a mechanism for moving a linear, wax-coated phonograph record at uniform speed for recording and reproducing speech and other sounds. That the record used was not photographic is unimportant. The problem of securing uniformity of motion of the record is the same for either type of linear sound record, as the present patent itself establishes, by classing together all types of linear records as exhibiting the "problem" to which the patent is directed. The French Dragoumis Patent, No. 472,467, of 1914, shows a film record moved by a cylinder turning on a shaft carrying a large wheel, obviously acting as a flywheel, though not described as such. See *American Road Machine Co. v. Pennock & Sharp Co.*, 164 U. S. 26, 38. The flywheel was mounted on the shaft of the record-carrying cylinder at the translation point. Finally, the British Pederson Patent, already referred to, shows a photographic sound record carried by a cylinder as it passes the translation point. His specifications, after pointing out that sound is "exceedingly sensitive to variation in rotating speed," and that it is necessary to obviate this during the recording and reproducing operations, state that this may be done "by providing particularly large flywheels."

There are numerous patents showing the like use of the flywheel in apparatus for reproducing motion pictures from film. That of Holst, already noted, shows in detail an apparatus exhibiting every element of Claim 5 except that its use is for reproducing motion pictures instead of sound from film. The toothed cylinder is located adjacent

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to the intermediate point which is the point of translation. The flywheel is associated with the cylinder by being attached to the rotary shaft carrying the cylinder.

An improvement to an apparatus or method, to be patentable, must be the result of invention, and not the mere exercise of the skill of the calling or an advance plainly indicated by the prior art. *Electric Cable Joint Co. v. Brooklyn Edison Co.*, 292 U. S. 69, 79, 80. The inclusion of a flywheel in any form of mechanism to secure uniformity of its motion has so long been standard procedure in the field of mechanics and machine design that the use of it in the manner claimed by the present patent involved no more than the skill of the calling. See *American Road Machine Co. v. Pennock & Sharp Co.*, *supra*, 41. Patents for devices for use both in the motion picture art and in the art of sound reproduction, notably the Holst, the Bell & Tainter, the Dragoumis patents, and the Edison application, already noted, plainly foreshadowed the use made of the flywheel in the present patent, if they did not anticipate it. The patentees brought together old elements, in a mechanism involving no new principle, to produce an old result, greater uniformity of motion. However skilfully this was done, and even though there was produced a machine of greater precision and a higher degree of motion-constancy, and hence one more useful in the art, it was still the product of skill, not of invention. *Hailes v. Van Wormer*, 20 Wall. 353, 368; *Grinnell Washing Machine Co. v. Johnson Co.*, 247 U. S. 426, 432-434; *Powers-Kennedy Contracting Corp. v. Concrete Mixing & Conveying Co.*, 282 U. S. 175, 186. Its application in recording sound or reproducing it, by use of a particular type of linear record, the photographic, analogous so far as the problem of uniformity of motion was concerned to other types used by Bell & Tainter and Dragoumis, was not invention. See *Paramount Publix Corp. v. American Tri-Ergon Corp.*, *ante*, p. 464.

There is some suggestion in respondent's brief and argument that the location of the flywheel adjacent to the toothed cylinder is an element in the invention which contributed to the success of the mechanism. But as has already been indicated such location is but the teaching of the art. In any case, the claims call only for the flywheel located upon the shaft or in association with the cylinder. No particular location is mentioned.

The Court of Appeals, in upholding the patent, made no examination of its separate claims, but treated the patent throughout as though it were a combination of five distinct elements, the photoelectric cell, the arcuate flexing of the film, the flywheel, the flexible connection of the flywheel and the optical slit, although nowhere in the patent is any such combination claimed. The patent thus upheld is one which was neither claimed nor granted. Under the statute it is the claims of the patent which define the invention. See *White v. Dunbar*, 119 U. S. 47, 51, 52; *McClain v. Ortmayer*, 141 U. S. 419, 423-425; *The Paper Bag Patent Case*, 210 U. S. 405, 419; *Smith v. Snow*, *ante*, p. 11. And each claim must stand or fall, as itself sufficiently defining invention, independently of the others. See *Carlton v. Bokee*, 17 Wall. 463, 472; *Russell v. Place*, 94 U. S. 606, 609; *Leeds & Catlin Co. v. Victor Talking Machine Co.*, 213 U. S. 301, 319; *Symington Co. v. National Malleable Castings Co.*, 250 U. S. 383, 385; *Smith v. Snow*, *supra*; *Walker on Patents*, § 220, 6th ed. As none of the flywheel claims as drawn define an invention, none can be aided by reading into it parts of the specifications, or of other claims, which the patentees failed to include in it.

The court below, attributing the rapid development of the sound motion picture industry to the invention in the patent in suit, thought, as respondent earnestly argues here, that its utility and commercial success must be accepted as convincing evidence of invention. But we think that

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want of invention would have to be far more doubtful than it is to be aided by evidence of commercial success, indicating that it brought realization of a long-felt want. *Smith v. Dental Vulcanite Co.*, 93 U. S. 486, 495, 496; *Grant v. Walter*, 148 U. S. 547, 556; *DeForest Radio Co. v. General Electric Co.*, 283 U. S. 664, 685; compare *McClain v. Ortmayer*, *supra*, 428. Moreover, the record fails to show that there was any long-felt or generally recognized want in the motion picture industry for the device defined by the flywheel claims, or that the use of sound motion pictures was delayed by the inability of those skilled in the art to add a flywheel to the apparatus in order to give the desired uniformity of motion to linear phonograms. See *Paramount Publix Corp. v. American Tri-Ergon Corp.*, *supra*. There was no public demand for sound motion pictures before 1926, when the disc system of the Western Electric Company was first publicly used in conjunction with moving pictures. Before change to the photographic film system could be accomplished, it was necessary to await the development of numerous electrical devices not embraced in the present claims. Among them were adequate amplifiers, loud speakers and microphones. Progress in the perfection of these appliances was achieved rapidly, after the public acceptance of the sound picture in 1926, through the efforts of many independent workers in the field. When the need arose for a mechanism suitable to move film records with such speed-constancy as to reproduce the sound successfully, it was forthcoming. Only the skill of the art was required to adapt the flywheel device to familiar types of mechanism to secure the desired result.

Claims 9 and 13.

The court below made no reference to the contention of petitioner, urged here and below, that the patent was rendered invalid by the disclaimer filed shortly before the

trial of the present suit. The patent as issued contained the following claims:

“9. The method of translating sound or similar vibrations to or from a film record by the use of light varied in accordance with the sound, which comprises flexing the film arcuately longitudinally at the point of translation and rapidly and uniformly moving the film in a circumferential direction past said point.”

“13. An apparatus for reproducing speech, music or the like sounds from vibrations recorded on a film, by the use of a line of light varied in accordance with the sound, comprising a photoelectric cell, means for imparting to the film a rapid and uniform motion longitudinally of the film past said cell, a source of light projection for providing said light, and an objective lens in the path of said light and spaced from the film for directing said light as a converging narrow line impinging on the film at a point in the region of the focal point of said lens, said light passing through the film and on to said cell, the space between said lens and the film being free of obstructions to said light.”

In 1933 respondents, by appropriate procedure, disclaimed:

“(b) The method as set forth in claim 9, except wherein the uniformity of movement of the film past the translation point is effected by subjecting the portion of the film passing said point to the control of the inertia of a rotating weighty mass.

“(c) The combination as set forth in claim 13, except wherein a flywheel is operatively connected with the film through means which imparts uniformity of motion of the flywheel to the film.”

While the effect of the disclaimer, if valid, was in one sense to narrow the claims, so as to cover the combinations originally appearing in Claims 9 and 13 only when used in conjunction with a flywheel, it also operated to

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add the flywheel as a new element to each of the combinations described in the claims. The disclaimer is authorized by R. S. § 4917, which provides that when "through inadvertence, accident, or mistake . . . a patentee has claimed more than that of which he was the . . . inventor . . . his patent shall be valid for all that part which is truly and justly his own," provided that he or his assigns "make disclaimer of such parts of the thing patented as he shall not choose to claim . . . stating therein the extent of his interest in such patent." While this statute affords a wide scope for relinquishment by the patentee of part of the patent mistakenly claimed, where the effect is to restrict or curtail the monopoly of the patent,² it does not permit the addition of a new element to the combination previously claimed, whereby the patent originally for one combination is transformed into a new and different one for the new combination.

² The disclaimer and re-issue statutes were adopted to avoid the rule that if one claim is invalid the whole patent is void. *Moody v. Fiske*, 2 Mason 112, 118; see *Ensten v. Simon, Ascher & Co.*, 282 U. S. 445, 452; *Hailes v. Albany Stove Co.*, 123 U. S. 582, 589. The use of the disclaimer has been upheld where the elimination from the patent of the matter not relied upon did not operate to enlarge the monopoly of the patent, but narrowed it, as by eliminating in their entirety some of the claims of the patent, *Sessions v. Romadka*, 145 U. S. 29, 40; see *Union Metallic Cartridge Co. v. United States Cartridge Co.*, 112 U. S. 624, 642, or by striking out an alternative method or device, *Dunbar v. Myers*, 94 U. S. 187, 192, 194; *Hurlbut v. Schillinger*, 130 U. S. 456; *Carson v. American Smelting & Refining Co.*, 4 F. (2d) 463, 469, 470 (C. C. A. 9th), or by limitation of a claim or specification by deletion of unnecessary parts, *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U. S. 403, 435, 436; *Marconi Wireless Telegraph Co. v. DeForest Radio Telephone & Telegraph Co.*, 243 Fed. 560, 565 (C. C. A. 2nd), or by limiting the claim to a specific type of the general class to which it was applied, *Minerals Separation, Ltd. v. Butte & Superior Mining Co.*, 250 U. S. 336, 354; *United Chromium, Inc. v. International Silver Co.*, 60 F. (2d) 913, 914 (C. C. A. 2nd); *Seiberling v. Thropp's Sons Co.*, 284 Fed. 746, 756, 757 (C. C. A. 3rd).

If a change such as the present could validly be made, it could only be under the provisions of the re-issue statute, R. S. § 4916, which authorizes the alteration of the original invention in a re-issued patent, upon surrender of the old patent, for its unexpired term. Upon the re-issue "the specifications and claim in every such case shall be subject to revision and restriction in the same manner as original applications are." A patent amended by disclaimer thus speaks from the date of the original patent, while the re-issued patent, with respect to the amended claim, speaks from the date of re-issue. If respondent could thus, by disclaimer, add the flywheel to the arcuate flexing claim and to the optical claim, he would in effect secure a new patent operating retroactively in a manner not permitted by the re-issue statute and without subjecting the new claims to revision or restriction by the customary patent office procedure required in the case of an original or re-issued patent. Such transformation of a patent is plainly not within the scope of the disclaimer statute, and the attempted disclaimer as applied to Claims 9 and 13 is void. *Hailes v. Albany Stove Co.*, 123 U. S. 582, 587;³ see *Union Metallic Cartridge Co. v. United States Cartridge Co.*, 112 U. S. 624, 642; *Collins Co. v. Coes*, 130 U. S. 56, 68; compare *Grant v. Walter*,

³ *Albany Steam Trap Co. v. Worthington*, 79 Fed. 966, 969 (C. C. A. 2d); *Strause Gas Iron Co. v. Wm. M. Crane Co.*, 235 Fed. 126, 129, 130 (C. C. A. 2d); *Graselli Chemical Co. v. National Aniline & Chemical Co.*, 26 F. (2d) 305, 310 (C. C. A. 2d); *Hudson Motor Car Co. v. American Plug Co.*, 41 F. (2d) 672, 673 (C. C. A. 6th); *Corn Products Refining Co. v. Penick & Ford, Ltd.*, 63 F. (2d) 26, 30, 31 (C. C. A. 7th); *General Motors Corp. v. Rubsam Corp.*, 65 F. (2d) 217, 222 (C. C. A. 6th); *Consumers Tobacco Co. v. American Tobacco Co.*, 66 F. (2d) 926, 927 (C. C. A. 3rd); *Fruehauf Trailer Co. v. Highway Trailer Co.*, 67 F. (2d) 558, 559, 560 (C. C. A. 6th); *White v. Gleason Mfg. Co.*, 17 Fed. 159, 160 (C. C.); *Cerealine Mfg. Co. v. Bates*, 77 Fed. 883, 884 (C. C.); *Westinghouse Air Brake Co. v. New York Air Brake Co.*, 139 Fed. 265, 270 (C. C.).

148 U. S. 547, 553. It is unnecessary to consider whether the flywheel claim, if added to the original Claims 9 and 13, is such a part of the patentee's original conception as to entitle it to the benefit of the re-issue statute. See *Miller v. Brass Co.*, 104 U. S. 350, 355; *Hoffheins v. Russell*, 107 U. S. 132, 141; *Gage v. Herring*, 107 U. S. 640, 645; *Ives v. Sargent*, 119 U. S. 652, 663; *Corbin Cabinet Lock Co. v. Eagle Lock Co.*, 150 U. S. 38, 41-43.

With the invalid disclaimer must fall the original claims as they stood before the disclaimer. The disclaimer is a representation, as open as the patent itself, on which the public is entitled to rely, that the original claim is one which the patentee does not, in the language of the statute, "choose to claim or hold by virtue of the patent." Upon the filing of the disclaimers, the original claims were withdrawn from the protection of the patent laws, and the public was entitled to manufacture and use the device originally claimed as freely as though it had been abandoned. To permit the abandoned claim to be revived, with the presumption of validity, because the patentee had made an improper use of the disclaimer, would be an inadmissible abuse of the patent law to the detriment of the public.

While the precise effect of an invalid disclaimer upon the original claim seems not to have been judicially determined, analogous principles of the patent law are so well recognized as to leave no doubt what our decision should be. It has long been settled that a claim abandoned or rejected in the patent office with the acquiescence of the applicant cannot be revived in a re-issued patent. *Yale Lock Co. v. Berkshire Bank*, 135 U. S. 342, 379; *Dobson v. Lees*, 137 U. S. 258, 263-265. Nor can an interpretation be given the allowed claims which would revive the claims which were abandoned in order to obtain the patent. *Shepard v. Carrigan*, 116 U. S. 593, 597; *Roemer v. Peddie*, 132 U. S. 313, 317; *Royer v. Coupe*, 146 U. S. 524, 532; *Corbin Cabinet Lock Co. v. Eagle Lock Co.*, 150 U. S. 38, 40; *Morgan Envelope Co. v. Albany Paper Co.*, 152 U. S.

425, 429; *I. T. S. Rubber Co. v. Essex Rubber Co.*, 272 U. S. 429, 443; *Smith v. Magic City Club*, 282 U. S. 784, 789, 790; *Smith v. Snow*, *supra*. Similarly, where, in order to secure a re-issued patent, a disclaimer is made of a part of the original claims, the part so disclaimed cannot be revived by a second re-issued patent, *Leggett v. Avery*, 101 U. S. 256, nor where the disclaimer is for the purpose of securing an extension of the original patent, *Union Metallic Cartridge Co. v. U. S. Cartridge Co.*, *supra*, 644. See *Collins v. Coes*, *supra*, 68; compare *Gage v. Herring*, *supra*, 646. The settled rule that unreasonable delay in making a disclaimer invalidates the whole patent, *Ensten v. Simon, Ascher & Co.*, 282 U. S. 445, 452-458; compare *O'Reilly v. Morse*, 15 How. 62, 121; *Seymour v. McCormick*, 19 How. 96, 106; *Silsby v. Foote*, 20 How. 378, 387; *Gage v. Herring*, *supra*, 646; *Yale Lock Mfg. Co. v. Sargent*, 117 U. S. 536, 554; *Minerals Separation, Ltd. v. Butte & Superior Mining Co.*, 250 U. S. 336, 354, rests upon the similar principle that misuse of the patent, or a part of it, by the patentee in such a manner as to mislead the public or operate to its detriment, deprives the claim of the benefit of the patent laws. The part of the patent disclaimed can stand in no better position because the disclaimer was an unsuccessful misuse of the disclaimer statute.

As Claims 9 and 13 must be held invalid because of the improper disclaimers, and as the remaining claims in issue, the flywheel claims, are held invalid for want of invention, it is unnecessary to determine whether the improper disclaimers as to some of the claims render the entire patent void, as petitioners contend, and as has been intimated but not decided. See *Hailes v. Albany Stove Co.*, *supra*, 589; *Marconi Wireless Telegraph Co. v. DeForest Radio Tel. & Tel. Co.*, 243 Fed. 560, 565 (C. C. A. 2d); *Seiberling v. Thropp's Sons Co.*, 284 Fed. 746, 756, 759 (C. C. A. 3rd).

Reversed.

MR. JUSTICE BRANDEIS took no part in the consideration or decision of this case.