

embrace any combination of spiral springs with the rockers of platform rocking chairs.

The decree of the court below is therefore reversed, with directions to dismiss the bill.

ADAMS ELECTRIC RY. CO. v. LINDELL RY. CO.

(Circuit Court of Appeals, Eighth Circuit. October 26, 1896.)

No. 621.

1. PATENTS—COMBINATIONS OF OLD ELEMENTS—INDEPENDENT INVENTORS.

Where the principle to be applied and the mechanical elements to be used to reach a desired result are old, and several inventors independently form different combinations, which accomplish the general result with varying degrees of operative success, each is entitled to his own combination so long as it differs from those of his competitors, and does not include theirs, and neither can subject to tribute those whose combinations are not mere evasions of his own.

2. SAME—PATENTABLE INVENTION—ANALOGOUS USE.

If a new use is so nearly analogous to a former one that the applicability of the old device or combination to the new use would occur to a person of ordinary mechanical skill, the mere appropriation of the old device or combination to the new use, without substantial change, does not involve an exercise of the inventive faculty.

3. SAME—LIMITATION OF CLAIMS—REFERENCE TO SPECIFICATION.

General language in a claim of a patent which points to an element or device more fully described in the specification is limited to such an element or device as is there described.

4. SAME—INTERPRETATION OF CLAIMS.

The claims of a patent constitute legal notices, upon which every one has a right to rely, not only that the patentee has exclusive rights to the machines, improvements, or combinations claimed, but also that he has disclaimed and dedicated to the public every machine, combination, or improvement apparent upon the face of his patent, and not a mere evasion of his own, which he has not there pointed out and distinctly claimed as his discovery or invention.

5. SAME—INFRINGEMENT OF COMBINATION.

The absence from a device that is alleged to infringe a patented combination of a single essential element of that combination is fatal to the claim of infringement.

6. SAME—ELECTRIC MOTORS FOR STREET CARS.

A. Wellington Adams, the patentee in letters patent No. 300,828, issued on June 24, 1884, for improvements in electric motors, was one of several competitors, who independently organized different combinations of old mechanical elements by which they applied a well-known principle to the problem of so mounting an electric motor on a separate frame upon a self-propelling car or carriage that its parts would maintain their relative positions to the driven wheels and driven axle of the vehicle, regardless of the vertical and torsional movements of the other parts of the car or carriage, but he did not so precede all others, or strike out that which underlay or included all that his competitors produced, that he was entitled to subject them all to tribute.

7. SAME.

The patent to him is not of such a primary character that its claims are entitled to the broad construction and the liberal application of the doctrine of equivalents allowed to patents of that small class, but they were limited by their terms, and by the state of the art when Adams made his invention, to the specific combinations described in them, and to palpable evasions thereof.

8. SAME.

An armature of an electric motor, so mounted upon the driven axle of the car or carriage to be propelled as to revolve around it, and a field-supporting frame, rigidly secured to, or formed in one with, the axle-boxes of the driven wheels, are two of the essential elements of the combinations claimed in the patent to Adams.

9. SAME.

The combination used by the appellee, which was constructed in substantial accord with those described in letters patent Nos. 324,892 and 406,600, issued to Frank J. Sprague, is not an infringement of any of the claims of the patent to Adams, because it does not contain either of these two essential elements, and is not a mere evasion of the combinations claimed by Adams.

Appeal from the Circuit Court of the United States for the Eastern District of Missouri.

This is an appeal from a decree of the court below, which dismissed a bill for the infringement of letters patent No. 300,823, issued to A. Wellington Adams, on June 24, 1884, for improvements in electric motors, on the ground that there was no novelty and no patentable invention in any of the combinations claimed therein. 63 Fed. 986. When the case was submitted at the final hearing below, the question of the validity of the patent and the question of its infringement by the appellee had been properly raised by the pleadings and proofs, and these were the only questions which demanded the consideration or decision of the court. They are the only questions presented here. The following is a copy of the drawings, specification, and claims which form a part of the letters patent to Adams, upon which this suit is based:

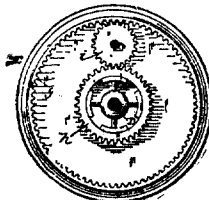
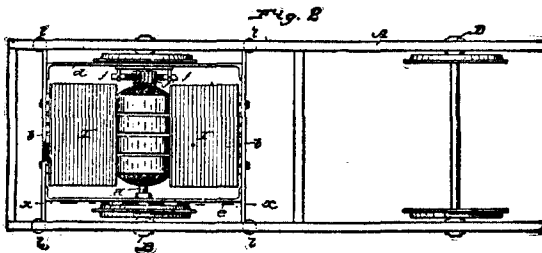
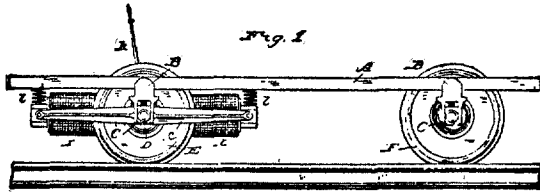
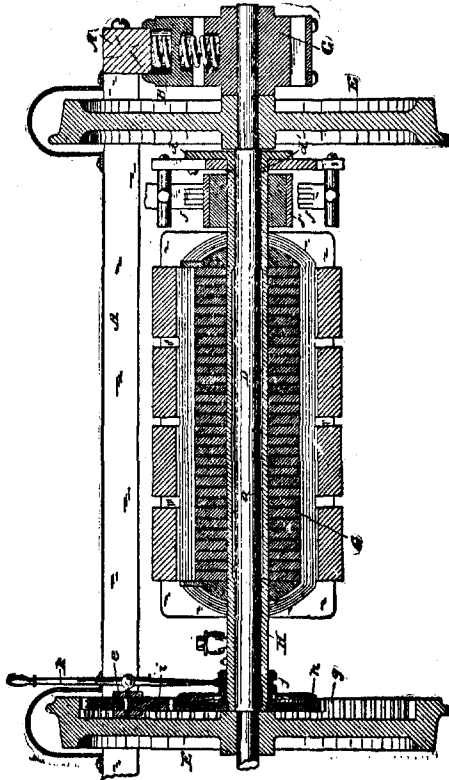


Fig. 3.



"United States Patent Office.

"A. Wellington Adams, of St. Louis, Missouri, Assignor to the Adams Electric Company of Same Place.

"Electric Motor for Railway Cars.

"Specification forming part of letters patent No. 300,828, dated June 24, 1884.

"Application filed December 15, 1883. (No model.)

"To all whom it may concern: Be it known that I, A. Wellington Adams, of St. Louis, in the state of Missouri, have invented a certain new and useful improvement in electric motors for railway cars and analogous purposes, of which the following is a specification:

"It is my object to provide an arrangement by which the field and rotating armature of an electric motor and the gearing or transmitting devices, through which motion is communicated from the armature to the wheels of the car or vehicle, can be supported in such manner as to be independent of the body of the car, with a view to permitting the latter to move freely without disturbing the relations of the motor and transmitting devices to the driven wheel or wheels. To this end I mount the armature upon the axle of the driven wheel or wheels, and I support the field in a frame, which is rigidly secured to or formed in one with the axle-boxes, or journal-boxes of said wheels, said frame also carrying the intermediate gearing, through which the armature is connected to the wheel or wheels to be driven. In this way the field and all other parts carried by the frame always occupy the same relative position to the wheels and armature, and are not affected or disturbed by the spring connection between the body of the car or truck and the wheels.

"The nature of my improvement, and the manner in which the same is or may be carried into effect, can best be explained and understood by reference to the accompanying drawings, in which Fig. 1 is a side elevation and Fig. 2 is a plan of so much of a railway car truck as needed for purposes of explanation. Fig. 3 is a cross section on enlarged scale, taken axially through the car-axle on which the armature is mounted. Fig. 4 is a section on x, x, Fig. 2, representing the driven car-wheel and gearing by which the same is actuated.

"In Fig. 2 the clutch mechanism is omitted, in order not to obscure the other parts. A represents a portion of the frame of the body of the truck or car, which takes a spring bearing in the box-frames, B, of the axle-boxes, C, in the usual way. The car-axles are represented at D, and the wheels secured thereon are shown at E, F. The wheels, E, in this case are the driven wheels, and their axle, D, carries the armature, G, of the electric motor. This armature is fast upon a sleeve, H, mounted to revolve on the axle, and formed between its ends with an oil chamber, a, supplied with a suitable lubricant. The field-magnets of the motor are represented at I. They are fast to the cross-bars, b, of a frame whose side bars, c, are rigidly secured to, or formed in one with, the axle-boxes, C, of the axle of the driven wheels, E. Between the cross-bars, b, extend, on either side of the motor, and in the space between the wheels, auxiliary bars, d and e. Bar d, at the point where it crosses the axle, has a sleeve, d¹, which encircles the axle and forms a supporting-hub, on which the commutator-brushes, f, of the motor are mounted, and can be adjusted to operate in conjunction with the commutator, f¹, of the armature in the customary way. The motor through the brushes is connected, as usual, with the generator, or source of electrical energy. The manner of connecting, being well known, requires no explanation here. The other auxiliary bar, e, is intended to carry the intermediate driving gearing. One of the car-wheels, E, is provided with an internal gear, g, formed on or secured to the wheel at or near the tire. On the revolving armature carrying sleeve, H, is spur-wheel, h, and intermediate between h and g is a floating pinion or spur-wheel, i, of paper, wood, or other suitable material, attached to and supported in bar, e, and meshing with both h and g. Under this arrangement, when the armature-gear, h, is in revolution, motion will be imparted from it to the wheel, E, through the intermediate pinion, i, with the result of revolving the wheels, E, and their axle in a direction opposite to that in which the armature moves. With a view to stopping or starting the car at will, the gear, h, is loose on sleeve, H, and is connected with and disconnected therefrom at pleasure by means of a friction or other clutch, j, of known type, controlled by the driver or engineer through the instrumentality of a lever handle, k, or other device suitable for the purpose. With a view to preventing injurious thrusts of or upon the field-supporting frame, I prefer to interpose between its ends and the body, A, springs, l.

"Under the arrangement described it will be seen that the field of the motor, although it does not revolve, is, in effect, carried directly by the wheels and their bearings, and retains the same relative position at all times with respect to the same, so that motions of the body of the car on its springs will not complicate or interfere with the transmission of power from the motor to the wheels.

"What I claim herein as new and of my own invention is as follows:

"(1) The combination, with the axle which carries the driven wheels, the axle-boxes or bearings, and a frame secured to, or formed in one with, said boxes or bearings, of an electric motor, whose armature is mounted to revolve on said axle, and whose field is attached to and carried by said frame, substantially as and for the purposes hereinbefore set forth.

"(2) The combination, with the driven wheels, their axle and axle boxes or bearings, and a field-supporting frame secured to or formed in one with said boxes or bearings, of an electric motor, whose armature and field are carried by said axle and frame, respectively, and intermediate motion,—transmitting gearing,—also carried by said frame, and meshing, on the one hand, with a gear on the driven wheels, and, on the other, with a gear on the armature hub.

"(3) The driven wheels, their axle and axle boxes or bearings, and the supporting frame secured to or formed in one with said boxes or bearings, in combination with the armature mounted to revolve on said axle, and the field-magnets, commutator-brushes, and intermediate motion-transmitting gearing mounted in and car-

ried by said supporting frame, under the arrangement and for operation as hereinbefore set forth.

"In testimony whereof I have hereunto set my hand this 21st day of November, 1883.

A. Wellington Adams.

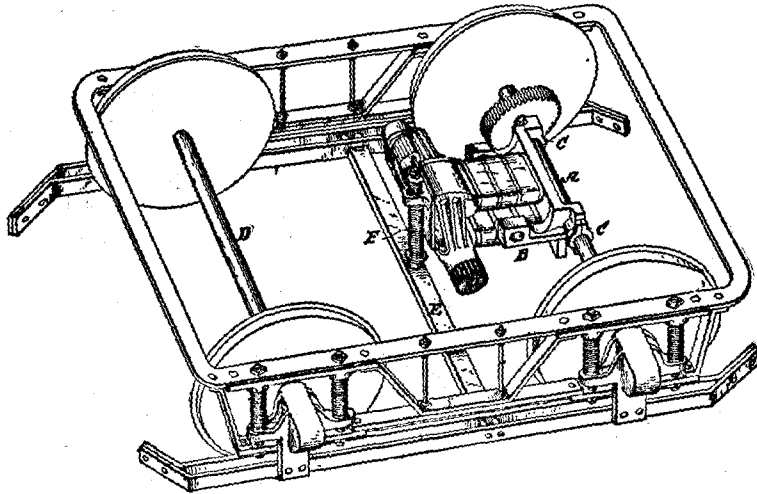
"Witnesses:

"A. P. Adams.

"F. E. Nipher."

In the year 1883, Adams constructed and operated for some months in a laboratory in the city of St. Louis a working model, which embodied the combinations claimed in his patent, upon a track about 75 feet long, made of small brass rails. He succeeded in carrying passengers upon the car which he propelled with his electric motor, but the specific device which he embodied in his model and described in his patent never went into commercial use.

The appellee, the Lindell Railway Company, is engaged in operating street railways by electricity. The following drawing, from which the spur gearing by which motion is transmitted from the pinion of the armature of the electric motor to the cog-wheel fixed upon the driven axle has been omitted, shows the



motor used by the Lindell Railway Company, the means by which it is supported in constant relative position to the driven axle of the street car, and the combination of elements which the appellant claims is an infringement of the patent to Adams. The appellee does not sleeve its armature upon the driven axle, so that it will revolve around it, but locates it upon a shaft journaled in the motor frame parallel to the driven axle, and places its field magnet between that axle and the shaft of the armature. One end of the motor frame is sleeved upon the driven axle, and the other end is supported by a spring, which is either attached to the body of the car or rests upon a cross-bar that extends from side to side of the truck frame between the driven and undriven axles. The various parts of the structure of the appellee are indicated by letters upon the drawing in this way: A is the driven axle; B, the motor frame; C, C, are the boxes at the extremity of the motor frame in which the driven axle is journaled; D is the undriven axle; E is the cross-bar which extends from side to side of the truck frame between the driven and undriven axles; F is the spring which rests upon the cross-bar, E, and supports the end of the motor opposite to that which is journaled on the driven axle.

The appellee purchased its electric motors of the owners of letters patent No. 324,892, issued to Frank J. Sprague on August 25, 1885, for an improvement in

electric railway motors, and letters patent No. 406,600, issued to Frank J. Sprague on July 9, 1889, for an improvement in electric railway motors. These motors purported to have been manufactured under the former patent. Figs. 1 and 2 of the drawings, and that part of the specification of this patent that is material to the issues in this case, are as follows:

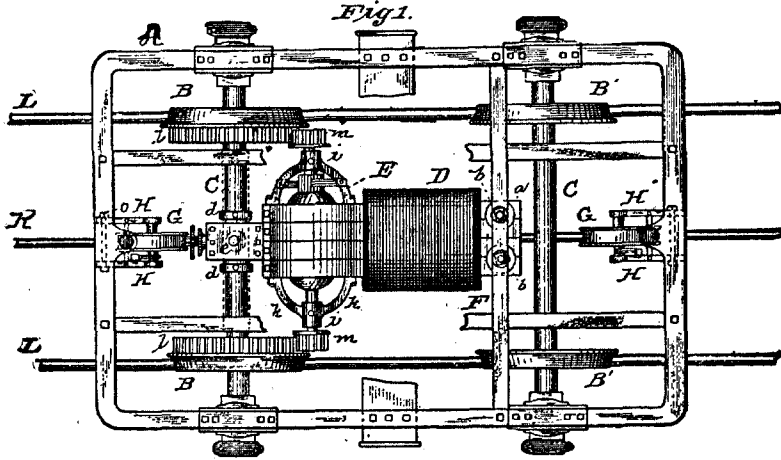
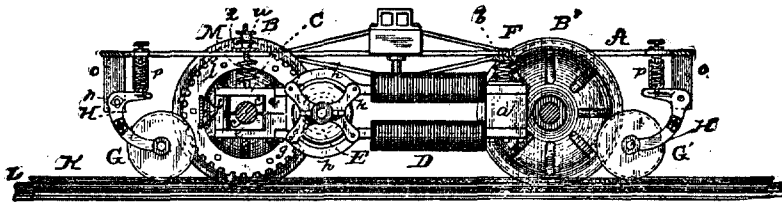


Fig. 2.



“United States Patent Office.

“Frank J. Sprague, of New York, N. Y.

“Electric Railway Motor.

“Specification forming part of letters patent No. 324,892, dated August 25, 1885. Application filed May 25, 1885. (No model.)

“My invention relates to electric motors mounted upon railway cars for the purpose of propelling the same; and my object is to so arrange and support the motor that the relative positions of the armature and field-magnet of the motor will not be changed, and the mechanical connections between the armature and the driving axle will not be disturbed by any movement of the car body on its springs at the same time that the driving axle will be relieved of dead weight.

“My invention is illustrated in the accompanying drawings, in which Fig. 1 is a plan view of an electric railway motor embodying said invention, and employing a cog-gearing between the armature and driving wheels; Fig. 2, a section of the truck with the electric motor in elevation. * * * D. is the field-magnet of an electro-dynamic motor, and E the armature thereof. The yoke or back-piece, a, of the field-magnet is hung from a cross-piece, F, of the truck by heavy springs, b, b,

or from the car body itself in case of a street car or other vehicle having no truck. The driving axle, C, at its middle portion, is inclosed in journals, c, c, situated between collars, d, d, on the axle; and these journals are held by clamping parts, e, e, joined together on one side of the axle by a plate, f, to which they are bolted, and on the other side bolted to extended parts, g, g, from the pole pieces, h, h, of the field-magnet. The clamping pieces, e, e, are of nonmagnetic metal. The bearings, l, l, of the armature shaft are carried directly upon the field-magnet pole pieces, being supported by arms, k, k, attached to the journal-boxes, and said pole pieces. * * * The armature being carried rigidly by the field-magnet, these two parts must always maintain precisely the same relative position under every vertical or lateral movement of the wheels or of the car body; and as the field-magnet which carries the armature is itself centered by the axle of the wheels to which the armature-shaft is geared, the engaging gears also must always maintain precisely the same relative position. At the same time the connection of the entire motor with the truck is through springs, so that its position is not affected by movements of the truck on its springs. * * *

"What I claim is:

"(1) The combination of a wheeled vehicle and an electro-dynamic motor mounted thereon and propelling the same, having its field-magnet sleeved on an axle of the vehicle, substantially as set forth.

"(2) The combination of a wheeled vehicle and an electro-dynamic motor mounted upon and propelling the same, the field-magnet of said motor being sleeved on an axle of the vehicle at one end, and supported by flexible connections from the body of the vehicle at the other end, substantially as set forth."

The drawings and specification of letters patent No. 406,600 show an electro-dynamic motor, one end of which is sleeved on the driven axle at two points, one on each side of the motor, while the other end is supported by a single spring upon the cross-piece, which extends from side to side of the truck frame of the car. In this specification the patentee says: "In my patent, No. 324,892, dated August 25, 1885, is set forth a mode of construction and arrangement for an electro-dynamic motor placed upon a wheeled vehicle for the purpose of propelling the same, in which the motor is centered upon the driving axle of the vehicle by sleeving its field-magnet on such axle and supported by springs, and the armature is carried upon the said field-magnet, and geared to the said driving axle in such manner that the armature shaft will always remain parallel with the driving axle, whereby a true engagement of the gears is always permitted in spite of any movements of the body of the vehicle on its springs, and at the same time the driving axle is relieved of the dead weight of the motor. My present invention relates to certain improvements upon this construction, the main object being to distribute the weight of the motor more evenly upon the driving axle, to prevent the motor from straining laterally, and to reduce the liability of the disabling of the apparatus by accident. The improvement mainly consists in dividing the bearings of the motor upon the axle into two parts, which are somewhat removed from each other on the axle. In practice, I accomplish this by providing two brackets, attached to or forming part of the field-magnet, preferably at its yoke or keeper, which brackets are formed or provided with sleeves inclosing the driving axle on each side of the magnet, and which also extend to points on each side, where they are formed or provided with bearings for a driving shaft, which may be the armature shaft of the motor or an intermediate counter-shaft or stud."

Two of the claims of this patent are:

"(4) The combination of a wheeled vehicle, an electro-dynamic motor mounted thereon and propelling the same, having its field-magnet sleeved at one end on an axle of the vehicle at two points, one on each side of the motor, and a flexible support for said field-magnet at its other end, substantially as set forth."

"(8) The combination of a wheeled vehicle, an electro-dynamic motor mounted thereon and propelling the same, brackets extending from the field-magnet of the motor on each side, and sleeved on an axle of the vehicle, and formed or provided with bearings in which the armature-shaft of the motor is supported; a counter-shaft, also supported by said brackets, gearing between said armature-shaft and said counter-shaft, and gearing between said counter-shaft and said axle, substantially as set forth."

The Sprague motors, manufactured under these two patents, have gone into general commercial use. More than 6,000 of them have been made and sold, and they seem to have excluded others from the market.

Among the more material letters patent introduced to illustrate the state of the art when Adams made his improvement and obtained his patent upon it were those issued to the parties whose names follow: Charles W. Hermance, No. 111,644, on February 7, 1871, for an improvement in steam road wagons. Louis Ransom, No. 183,970, on October 31, 1876, for improvements in steam engines. Louis T. Pyott, No. 188,672, on March 20, 1877, for improvements in running gear for railway cars. John B. Waring, No. 218,092, on July 29, 1879, for an improvement in engine frames for street cars. Stephen D. Field, No. 229,991, on July 13, 1880, for an improvement in propelling cars by electro-magnetism. Stephen D. Field, No. 232,253, on September 14, 1880, for improvements in electro-magnetic locomotives. British patent to Carl Heinrich Siemens, No. 583, on August 9, 1880, for improvements in the means and apparatus for conveying persons or objects from one locality to another by electro-motive power. British patent to Peter Jensen, No. 3,894, on March 25, 1881, for improvements in the construction of machinery and appliances for electro-magnetic railroads, and in the generation, distribution, and translation of electricity for working the same. United States patent to Joseph R. Finney, No. 285,353, on September 18, 1883, on an application filed February 15, 1882, for an improvement in propelling cars by electricity. In 1880, Thomas A. Edison constructed and successfully operated for some months a locomotive propelled by an electric motor mounted and connected with the axles of the wheels substantially as described in the patent to Peter Jensen, but this device never went into commercial use. In 1882, Joseph R. Finney mounted an electric motor under a passenger car of a street railway substantially as described in his patent No. 285,353, and successfully propelled the car by electricity upon a street in the city of Pittsburg for more than two months, but the specific construction which he described and used never became commercially valuable.

Robert H. Parkinson (Upton M. Young, Henry T. Kent, and Marcellus Bailey were with him on the briefs), for appellant.

Frederic H. Betts (Samuel R. Betts was with him on the brief), for appellee.

Before CALDWELL, SANBORN, and THAYER, Circuit Judges.

SANBORN, Circuit Judge, after stating the case as above, delivered the opinion of the court.

This appeal challenges a decree which dismissed a bill brought for the infringement of letters patent No. 300,828, issued to A. Wellington Adams, on June 24, 1884, for an improvement in electric motors for railway cars. The defenses that are now material were that there was no novelty in the alleged invention of Adams, and that the claims of the patent were not infringed by the appellee.

The claim of the counsel for the appellant is that Adams was the pioneer in the art of mounting electric motors beneath cars so that they would practically and successfully propel them. They contend that he was the first to perceive the necessity, and the first to conceive the idea, of mounting them upon the driven axles of the cars, so that they and their motion-transmitting gearing should always sustain the same positions relative to such axles, independent of the motions of the bodies of the cars, their truck frames, and their un-driven axles. They insist that Adams first invented, and first disclosed in his patent, a combination of mechanical elements by means of which this idea could be utilized, and that every other combina-

tion by which it is utilized—every combination by means of which an electric motor and its motion-transmitting gearing are mounted upon and held in constant relative positions to the driven axle of a car, independent of the motions of its body, its truck frame, and its undriven axle—is an embodiment of his invention, an equivalent of his combination, and an infringement of his patent. This is a broad claim, and it must be determined by the limitations placed upon this patent by the state of the art when the invention it protects was made, and by the specification and claims of the patentee which it contains. One who invents and secures a patent for a machine or combination which first performs a useful function is protected thereby against all machines and combinations which perform the same function by equivalent mechanical devices; but one who merely makes and secures a patent for a slight improvement on a device or combination, which performs the same function before as after the improvement, is protected against those only who use the very improvement that he describes and claims, or mere colorable evasions of it. "If one inventor precedes all the rest, and strikes out something which includes and underlies all that they produce, he acquires a monopoly, and subjects them to tribute. But if the advance towards the thing desired is gradual, and proceeds step by step, so that no one can claim the complete whole, then each is entitled only to the specific form of device which he produces, and every other inventor is entitled to his own specific form, so long as it differs from those of his competitors, and does not include theirs." *Railway Co. v. Sayles*, 97 U. S. 554, 556; *McCormick v. Talcott*, 20 How. 402, 405; *Stirrat v. Manufacturing Co.*, 27 U. S. App. 13, 42, 10 C. C. A. 216, 217, and 61 Fed. 980, 981; *Griswold v. Harker*, 27 U. S. App. 122, 150, 10 C. C. A. 435, 438, and 62 Fed. 389, 391. Did Adams precede all other inventors in the art of mounting electric motors beneath cars, and strike out a combination which includes and underlies all that they have produced, so that he may subject them all to tribute, or was the advance to the present state of that art gradual, so that he is entitled only to the specific combination which he produced? This is the first question which challenges attention, and the answer must be found in the state of the art when his invention was made.

Before reviewing the progress of this art, and marking its condition when Adams conceived and organized his device, it may not be unprofitable to note the general character and the essential elements of the combination described and claimed in his patent, and those of that which is alleged to infringe it. It is conceded that Adams did not invent any of the mechanical devices which he used to mount an electric motor beneath a car. When he made his invention, electric motors, with their armatures and fields arranged in the form which he adopted, motor frames of various forms, cars, car-wheels, car-axles, axle-boxes, motion-transmitting gearing,—all the mechanisms which formed the elements of his combination,—were old. His patent was granted, and it must stand, if it stand at all, not upon the

ground that he invented or discovered any new machine or mechanical device, but on the ground that he organized a new combination of old and well-known elements, by means of which a new and useful result was obtained. Thomson v. Bank, 10 U. S. App. 500, 509, 3 C. C. A. 518, 520, 521, and 53 Fed. 250, 252, 253; Seymour v. Osborne, 11 Wall. 516, 542, 548; Gould v. Rees, 15 Wall. 187, 189. The new and useful result which Adams claimed that he attained was the successful transmission of power from the armature of an electric motor to the driven wheels of a self-propelling car by means of spur-gearing. He claimed that he reached that result by securing all the parts of the electric motor and the necessary motion-transmitting gearing in constant relative positions to the driven wheels and their axle, independent of the movements of the other parts of the vehicle. But the problem he sought to solve can hardly be said to have been novel, nor the idea which proved the key to its solution original with Adams. The necessity of securing the driving and driven parts of a self-propelling vehicle in constant relative positions to each other is self-evident. How to accomplish this result must have been the first question which presented itself for answer to him who first made one. The solution of this problem was as indispensable to the successful operation of a locomotive as to that of an electric car. Nor were the problems of mounting the steam engine and the electric motor radically different. In the case of the engine, the cylinders must be held fast in fixed positions relative to the driving wheels of the engine or car to be propelled, while the pistons must reciprocate in constant radial relation to them. In the case of the electric motor, the field, the revolving armature and the motion-transmitting gearing must be secured in constant local relation to the driven wheels and their axle. The problem was purely mechanical. It was a simple question of securing the various parts of the propelling machinery in place, and holding them there. It is true that steam and electric motors for use upon cars have different characteristics; that the power is produced in the one, and merely transmitted through the other; that it is communicated to the driven wheels through reciprocating pistons in the one, and through a revolving armature and speed-reducing gearing in the other; that the cylinders of the one have a tendency to move on a line with the piston rods, and the field of the other has a tendency to turn when the machinery is started or stopped. But, when all is said, the main problem of securing and holding the cylinders and pistons in the one, and the field, armature, and speed-reducing gearing in the other, in the same positions relative to the driven wheels and their axles, independent of the motions of the other parts of the vehicle to be propelled, is in all its essentials the same, and attempts to solve this problem in mounting either the steam engine or electric motor fitly illustrate the progress and state of the same art.

The electric motors used by the appellee appear to have been manufactured under letters patent No. 324,892 and 406,600, issued to

Frank J. Sprague, and they were mounted substantially as described in the drawings and specifications of those patents. A copy of the drawing of the exact device used by the appellee appears in the statement of the case which precedes this opinion. The chief object which Adams and Sprague sought to attain by means of their inventions was to secure an electric motor and its gearing under a car, in such relation to the axle and the wheels, which its armature propelled, that the armature, and the field of the motor, and the requisite gearing which transmitted the motion from the armature to the wheels, should retain the same positions, relative to the driven axle, unaffected by the starting and stopping of the car, by the movements of the body of the car upon its springs, or by the torsional movements of the axles of the car and the truck frame as they pass around curves or over uneven surfaces. An inspection of the drawing of the device used by the appellee, and of the combination disclosed in the patent to Adams, is enough to show that the means which they used to accomplish this purpose were not identical. Adams sleeved the armature of his motor upon the driven axle of the car, so that it would revolve around it in the middle of the field of his motor, and he mounted his field and motion-transmitting gearing in a separate frame rigidly secured to, or formed in one with, the axle-boxes or bearings of the driven wheels. In the specification and claims of his patent, he insists with marked emphasis upon the armature mounted to revolve around the driven axle, and the motor frame rigidly secured to, or formed in one with, the axle-boxes of the driven wheels, as essential elements of his combination. Neither of these elements is found in the device used by the appellee in the form described and claimed in the patent to Adams. It does not mount its armature upon the driven axle so that it may revolve around it, nor does it rigidly secure its motor frame, or secure it in any way to the axle boxes of the driven wheels. It hangs the frame beneath the car by its ends. One end is supported upon the driven axle by boxes of its own, separate from the axle boxes of the driven wheels, while the other end is suspended upon a spiral spring, which stands upon a cross-bar upon a truck frame, or hangs from the body of the car. It mounts its armature to revolve on a shaft journaled in the motor frame near to the end opposite to that which is sleeved upon the axle, and it supports the field of its motor and the necessary motion-transmitting gearing upon the same frame with the armature. In the one, the armature is sleeved, so as to revolve around the driven axle, and is not carried by the same frame which supports the field of the motor. In the other, the armature is not mounted to revolve around the driven axle, but is mounted upon a shaft journaled in the same frame which carries the field. In the one, the field-supporting frame is rigidly secured to the axle-boxes of the driven wheels. In the other, it is not secured to them at all, but is suspended upon the driven axle at one end and upon a spiral spring at the other.

We turn to the consideration of the state of the art when Adams made his invention and secured his patent. He filed his applica-

tion for this on December 15, 1883, and the patent was issued on June 24, 1884. In the summer of 1883, he embodied his combination in a model, and succeeded in propelling a car with it, and in carrying passengers upon this car upon a track 75 feet long, made of small brass rails, and laid in a laboratory in the city of St. Louis. He had made a sketch of an electric motor on January 3, 1882, which portrayed some of the elements of his patented combination, but lacked the element of a field-supporting frame rigidly secured to the axle-boxes of the driven wheels, and showed such a frame supporting a balanced field sleeved upon the driven axle, with spiral springs on each end for the purpose of attaching the frame to the body of the car. He exhibited this sketch to one of his witnesses on January 3, 1883. It is a curious and remarkable fact that this early sketch shows a balanced field-supporting frame, sleeved upon the driven axle, with spiral springs at each end to attach it by flexible connections to the body of the car, but that when Adams made his model, and described and claimed his combination in his patent, he seems to have abandoned the flexible connections, and selected, and secured in lieu of them, a frame rigidly secured to or made in one with the axle-boxes of the driven wheels. In this way he enabled Sprague on August 25, 1885, more than a year later, to secure his patent, No. 324,892, for "the combination of a wheeled vehicle and an electro-dynamic motor mounted upon and propelling the same, the field-magnet of said motor being sleeved upon an axle of the vehicle at one end, and supported by flexible connections from the body of the vehicle at the other end," which is a substantial description of the type of motor which has since gone into general commercial use. The idea of sleeving one end of the motor frame upon the driven axle of a self-propelling vehicle, and supporting the other by a yielding or flexible connection with the body of the car or carriage, so that all the parts of the motor and its connections would constantly hold the same positions relative to the driven axle, was not, however, original with Adams or with Sprague. Nor was either of them the first to describe or claim a device or combination of elements which illustrated it. On February 7, 1871, letters patent No. 111,644 were issued to Charles W. Hermance, for an improvement in steam road wagons, which portrayed and described an independent motor frame, which was hinged or sleeved upon the driven axle of the vehicle at one end, and supported upon elliptical springs which rest upon the beams of the wagon body at the other, and which carried a boiler, engine, and speed-reducing gearing, to transmit the motion from the pistons of the engine to the driven wheels of the vehicle. The independent motor frame was marked "E," and the elliptical springs "a, a," in the drawing of Hermance. He said, in his specification:

"The boiler, engine, and machinery are all attached to the frame, E, which frame thus suspends these parts, permitting of all necessary vertical motion of the same, thereby relieving them from all injurious shocks and concussions they would otherwise receive in being propelled over rough and uneven roads."

And he claimed:

"The horizontal frame, E, and springs, a, a, or any other device that shall operate as their equivalents, by suspending the boiler, engine, or machinery, and allow of vertical motion to the same, between the axle and parts which they support, without ungearing itself, or changing the distance between the axle and cylinders, as herein set forth."

Suspend the free end of the motor frame of Hermance, by its springs, below, instead of above, the body of the vehicle, and the motor frame of the appellee is, in form and principle, a reproduction of it.

On October 31, 1876, letters patent No. 183,970 were issued to Louis Ransom for an improvement in steam engines for propelling street cars. The engine frame which he described and claimed in this patent is intended to be placed beneath the body of a street car. It consists of two metallic bars, sleeved at one end upon the driven axle, and supported at the other upon a bail or cross-piece, the center of which rests upon a simple bar fixed in sockets between two cross-timbers of the car floor, or upon the end of a lever whose fulcrum is the undriven axle. If the lever is used, boxes are suitably placed upon the undriven axle, so that it may revolve without disturbing the lever, and the end of the lever opposite to the bail is firmly secured in its place. Ransom says, in his specification:

"With the lever, the entire weight of the engine rests on the car axles; with the bar, the cylinder end hangs on the car frame. By either arrangement, the front of the engine hangs on a single point, so that no torsion of the car, from derailment or other causes, can affect it injuriously. By thus suspending the engine, its cylinder end hangs loosely. It may swing or revolve around the axle, and be in perfect line at every point. The driving-axle sustains all the working strain, and is, therefore, practically the only foundation of the engine, which is a material feature of my invention. The valves may be set with the greatest accuracy, and with certainty that no motion of the car or engine can disturb their action."

His first claim was:

"(1) An engine frame connected with the crank-axle, substantially as explained, so that the whole engine may be revolved about said axle, and have no other foundation save the axle, for the purposes set forth."

It is not perceived why the principle of mounting a motor to propel a street car in an independent frame upon the driven axle, so that all its parts shall be dominated by, and shall move in unison with, that axle, unaffected by the motions of the other parts of the vehicle, is not fully disclosed by this patent, and fairly embodied in the mechanism it portrays.

On March 20, 1877, letters patent No. 188,672 were issued to Louis T. Pyott for an improvement in running gear for cars. The drawings and specification of this patent show a steam motor suspended beneath a car upon the driven axle at one end and upon links attached to the car-bed at the other. Pyott says, in his specification:

"Another object of the invention is to provide improved means for securing the engine or motor beneath the car-bed independently of the front and rear wheels and a radially-moving frame."

And he claims "the engine or motor supported wholly by the driving-axle, and links depending from the car-bed, as set forth."

On July 29, 1879, letters patent No. 218,092 were issued to John B. Waring for an improvement in engine-frames for street cars, which disclose a steam motor beneath a car body, supported upon an independent frame, which is sleeved upon both axles of the car, each of which is connected with and driven by one of the pistons of the engine.

On July 13, 1880, letters patent No. 229,991 were issued to Stephen D. Field for improvements in propelling railway cars by electro-magnetism. They describe an electric motor mounted directly upon the car to be driven, with its main shaft connected with one of the axles of the car by a belt.

On September 14, 1880, letters patent No. 232,253, for improvements in electro-magnetic locomotives, were issued to Stephen D. Field, in which the balanced form of motor which Adams adopted, with its armature between two stationary magnets, is shown mounted directly upon the frame of the locomotive with its main shaft connected with the driving wheels by spur-gearing. The patentee says, in his specification, that the electric motor may be of any well-known or suitable construction, and says he has "shown in the drawings one form which is well adapted to the purpose, and which consists of two large and powerful stationary electro-magnets, D, D, having an armature, E, wound with coils of insulated wire, and arranged to rotate upon the shaft, e, within the field of force of the stationary magnets, D, D."

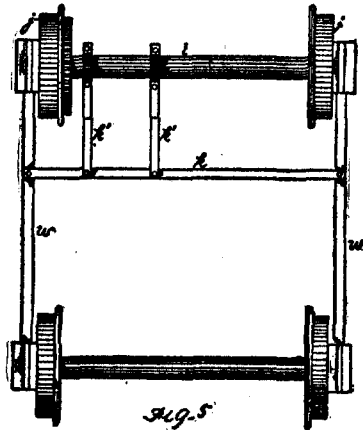
British patent No. 583, issued to Carl Heinrich Siemens, for "improvements in the means and apparatus for conveying persons or objects from one locality to another by electro-motive power," describes the same form of motor.

In the year 1880, Thomas A. Edison constructed an electro-magnetic locomotive and operated it at Menlo Park, N. J., for some months. This locomotive had a large frame of angle iron, which was supported upon the axles of the driven and undriven wheels. The electric motor was mounted directly upon this frame. Belts and pulleys, friction wheels, and spur-gearing were used at different times to transmit the motion from the armature of the motor to the driven wheels of the locomotive. Edison was able to drive the locomotive and carry passengers upon it, but it does not appear that he ever placed the motor beneath the body of a car, or that the combination he used ever went into use.

British patent No. 3,894, issued to Peter Jensen in 1880, contains a general description of the means by which this motor was mounted, and of the devices used at different times to transmit the motion from the armature to the driven wheels.

On February 15, 1882, Joseph R. Finney filed in the patent office an application for an improvement for propelling cars by electricity. On September 18, 1883, letters patent No. 285,353 were issued to him upon this application. The drawings and specification of this patent describe an electric motor and the necessary motion-transmit

ting gearing, mounted, underneath the car to be propelled, upon a separate frame, one end of which is sleeved upon the driven axle, while the other end is supported upon a cross-bar, which rests upon the truck frame. Here is a copy of Fig. 5 of the drawings of this patent, which illustrates the character of this frame:



The portion of the specification which explains this figure is:

"The motor-supporting frame is composed of the cross-bar, k, which extends between and rests upon the axle-bars, w, and two or more angle-bars, k¹, one end of which rests upon the bar, k, and the other upon the axle, l, being provided with bearings, k²."

This specification contains the following statement relative to the purpose of this motor frame, if the letters of reference in it are omitted:

"To provide for a constant and reliable power-connection between the motor shaft and the axle or wheels of the car, I have placed the electro-motor on a framework or support which rests upon the axle bars, instead of placing it on the body of the car, where it would be affected by the action of the springs of the car. In the latter case, the springing of the body of the car would tend to raise the teeth of the pinion, either entirely out of those of the gear-wheel, or to such an extent as to interfere seriously with the operation of the propelling devices."

In the summer of 1882, Finney mounted an electric motor under a street car in the way he described in this patent, except that he abandoned the cross-bar, k, and extended the supporting bars, k¹, to, and supported them upon, the undriven axle. He successfully operated this motor, and carried passengers upon the car it propelled, upon a street in the city of Pittsburgh, Pa., for several months. When he filed his application, his eighth claim was:

"(8) The combination of the car axle, with an electric motor mounted on a frame or support independent of the body of the car, so as to be unaffected by the spring action of the same and power connections between said axle and motor, substantially as described."

The commissioner of patents rejected this claim as anticipated by the patents to Field, to which reference has been made. In answer

to a protest from Finney's attorneys, and an application on their part for a reconsideration of this objection, he replied:

"As to claim 8 filed, it is believed that the references previously cited fairly anticipate this claim. The patent of J. B. Waring, No. 218,092, July 29, 1879 (railway cars, trucks), is cited as showing that it is old to support the motor of a car in the manner selected by applicant. To exchange a steam motor for an electric motor is not held to be an invention."

This ruling of the commissioner certainly raises a strong presumption that, 10 months later, when he allowed them, the commissioner did not place the broad construction upon the claims of the Adams patent for which the appellant now contends. Nor are we persuaded that there was any error in his holding that it is not an invention to simply exchange a steam motor for an electric motor. In our opinion, the applicability of the mechanism which would hold a steam motor in constant relative position to the driven axle of a self-propelling car, independent of the motions of all its other parts, to the new use of securing an electric motor in a like position, would occur to a person of ordinary mechanical skill, and undoubtedly did occur to all who undertook to solve this problem. In the late case of *Potts v. Creager*, 155 U. S. 597, 608, 15 Sup. Ct. 194, 199, Mr. Justice Brown delivering the opinion of the supreme court said:

"As a result of the authorities upon this subject, it may be said that, if the new use be so nearly analogous to the former one that the applicability of the device to its new use would occur to a person of ordinary mechanical skill, it is only a case of double use; but if the relations between them be remote, and especially if the use of the old device produce a new result, it may at least involve an exercise of the inventive faculty."

There are 3,930 pages in the printed record in this case, and it contains printed publications, patents, and testimony to which no reference has been made in this opinion; but it contains nothing to weaken the force or significance of the facts to which we have adverted. The testimony of the experts for the appellant is instructive and interesting, and clearly presents their views. The arguments and briefs of its counsel were learned, able, exhaustive, and persuasive. They seem to us to have left nothing unsaid that could make for the success of the appellant, but these facts stand proved by this record: The problem of so mounting an electric motor beneath a car that it would successfully propel the same was not new when Adams made the invention which he described and claimed in his patent. In its essentials, it was the same old problem which must have presented itself to every one who had attempted to make or operate a self-propelling vehicle. Adams did not discover the principle which proved to be the key to its solution, namely, the mounting of the motor upon an independent frame so secured to the driven axle that all its parts should retain constant positions relative thereto, regardless of the motions of the other parts of the car or carriage. That principle had been clearly announced by Hermance, Ransom, and Finney. Adams was not the first to devise a combination of mechanical elements by which this principle might become operative. Hermance, in 1871, Ransom, in 1876, Pyott, in 1877, Edison, in 1880, Finney, in 1882, Adams, in 1883, and Sprague, in 1886, organized

and described mechanisms by which they sought to take advantage of this principle. One of the elements of the combinations of Edison, Finney, Adams, and Sprague was an electric motor. Each of them succeeded in propelling a car by means of the specific combination which he organized and described. Each differed in some respects from all the others. Doubtless, some were more efficient than others. The combination devised by Sprague and used by the appellee has gone into general commercial use, and more than 7,000 electric motors have been mounted by the means he described and put into practical operation. The combinations devised by Edison, Finney, and Adams are not now used. They do not differ in principle from that which is used. They differ only in the means by which their creators sought to apply that principle. Indeed, the only substantial difference between the combination described in the patent to Finney and that used by the appellee is that the end of the motor frame opposite the driven axle rests directly upon the cross-bar upon the truck frame in the one, and upon a spiral spring supported upon such a cross-bar, or from the body of the car, in the other. The means devised by Adams to accomplish the desired result differ from those used by the appellee far more radically than did those of Hermance, Ransom, Pyott, or Finney. These facts have borne the conclusion in upon our minds with compelling force that Adams cannot be held to be a pioneer inventor, nor his patent to be of primary character, in the art of mounting electric motors to propel cars. This is not a case where Adams preceded all the rest, and struck out something which included and underlay all that they produced. It is a case in which the principle to be applied, and the mechanical elements to be used, were all old and well known. Many minds were independently striving to accomplish the same purpose. Adams formed and patented one combination. Edison, Finney, and Sprague devised and used others. Each is entitled to his own form, so long as it differs from that of his competitor and does not include theirs, and neither is entitled to subject to tribute those whose combinations are not mere evasions of his own. The franchise of Adams was limited by the state of the art to the specific combination he described and claimed in his patent, and to palpable evasions of it.

Turning to the specification and claims of the patent to Adams, and examining them in view of this limitation, it is evident that the two principal elements in each of the combinations there claimed were an armature mounted upon the driven axle so as to revolve around it, and a field-supporting frame rigidly secured to, or formed in one with, the axle-boxes of the driven wheels. The contention of the experts and counsel for the appellant that the second claim of this patent is broad enough to cover an armature carried in any way upon the driven axle has not escaped consideration. After stating the object of his invention in his specification, Adams opens his description of the means by which he attains that object in these words:

"To this end I mount the armature upon the axle of the driven wheel or wheels."

When he describes the method by which his improvement is or may be carried into effect, he says:

"The wheels, E, in this case are the driven wheels, and their axle, D, carries the armature, G, of the electric motor. This armature is fast upon a sleeve, H, mounted to revolve on the axle, and formed between its ends with an oil-chamber, a, supplied with a suitable lubricant."

The first claim of the patent is for a combination with other elements of an "electric motor whose armature is mounted to revolve on said axle, and whose field is attached to and carried by said frame." The second claim is for the combination of motion-transmitting gearing, which is not mentioned in the first claim, with all the elements of that claim. In again enumerating the elements of the combination first claimed, the patentee describes the motor as "an electric motor whose armature and field are carried by said axle and frame, respectively." The third claim is for a combination with other elements of "the supporting frame secured to, or formed in one with, said boxes or bearings, in combination with the armature mounted to revolve on said axle." No other way of mounting or carrying the armature is described in the specification, or shown in the drawings. If the word "respectively," in the second claim, has any significance, it means that the armature is to be carried by the axle, and the field by the frame. The electric motor described in the second claim is clearly the same motor referred to in the preceding and subsequent claims; that is to say, a motor whose armature is mounted to revolve around the driven axle. The claims of a patent limit the exclusive privileges of the patentee, and his specification may be referred to to explain and restrict, but never to expand, them. General language in a claim which points to an element or device more fully described in the specification is limited to such an element or device as is there described. *Mitchell v. Tilghman*, 19 Wall. 287; *Stirrat v. Manufacturing Co.*, 27 U. S. App. 13, 47, 10 C. C. A. 216, 220, and 61 Fed. 980, 984. In view of this principle, the true construction of the second claim of this patent makes an armature mounted to revolve around the driven axle an essential element of the combination there claimed.

When an electric motor is started or stopped, the stationary magnets constituting the field of the motor have a tendency to turn, and, if held too rigidly, will cause jars and thrusts that are deleterious to the machinery and annoying to passengers in the car. If the field is suspended upon the driven axle at one end, and upon a spring at the other, as in the construction used by the appellee, this turning movement or torque will spend its force upon the spring, and the injurious effects of the jars and thrusts will be avoided. It has been strenuously argued that Adams constructed and mounted his field-supporting frame in yielding restraint, and thus guarded against the evil effect of this torque. The only words in his patent which could indicate that he ever thought of, or intended to provide against, this turning movement, are in this sentence in his specification:

"With a view to preventing injurious thrusts of or upon the field-supporting frame, I prefer to interpose between its ends and the body, A, springs, L"

But these springs are omitted from the claims of the patent, and were therefore abandoned to the public, and constituted no part of the protected combination. *Miller v. Brass Co.*, 104 U. S. 350, 352. On the other hand, Adams says in his specification:

"I support the field in a frame, which is rigidly secured to, or formed in one with, the axle-boxes or journal-boxes of said wheels. * * * In this way the field and all other parts carried by the frame always occupy the same relative position to the wheels and armature, and are not affected or disturbed by the spring connection between the body of the car or truck and the wheels."

In each of the claims of his patent he describes this frame as a "frame secured to, or formed in one with, said boxes or bearings." The ordinary boxes or bearings of the wheels of a street car can hardly be said to be held in yielding restraint, and, if they are not, the field-supporting frame of Adams was not. It will not do to say that the frame rigidly secured to the axle-boxes of the driven axle was given an oscillating movement by Adams to guard against this torque by means of the spring mounting of the body of the car, because he declares in his specification that, when so secured, it is not affected or disturbed by the spring connection between the body of the car or truck and the wheels. From these considerations it seems clear to us that an armature of an electric motor mounted upon the axle of the driven wheels of the car so that it can revolve around the axle, and a field-supporting frame rigidly secured to, or formed in one with, the axle-boxes or bearings of the driven wheels, are indispensable elements of each of the combinations described in the three claims of the patent to Adams.

The motor frame of the appellee, suspended at one end upon separate axle-boxes of its own, and at the other upon a spiral spring, carrying its armature upon a shaft sleeved in its sides, cannot be said to be the equivalent of a field-supporting frame rigidly secured to the axle-boxes of the driven wheels, and an armature revolving upon the driven axle, under the restricted application of the doctrine of equivalents imposed upon the claims of the patent to Adams by the state of the art. In the one the supporting frame is held suspended in yielding restraint, so that the jars and shocks produced by the torque of the field of the motor and by the movements of the car shall be received upon, and minimized by, the spiral spring at the free end of the frame. In the other, the supporting frame is rigidly secured to the axle-boxes of the driven wheels. In the one, the supporting frame carries and holds the armature in constant relative position to the field. In the other, the armature is not carried by the field-supporting frame, but upon the driven axle, and the relative position of the field to the armature is conditioned by that of the bearings of the driven wheels to their axle. The combination of the appellee, which contained elements so radically different from that of Adams, cannot be held to be a mere evasion of the latter. It is not the same combination. It mounts and supports the motor by different means, and possibly accomplishes a better result. If it does not, the appellant is free to use the combination of Adams. But the claims of his patent cannot be broadened to cover the construction of the appel-

lee. If they could, the devices patented to Hermance, Pyott, and Finney would probably anticipate and avoid the patent, for they are certainly more nearly the equivalents of the mechanism used by the appellee than is the combination described and claimed by Adams. Moreover, Adams did not make any claim to such a combination as that of the appellee, and neither he nor his assignees ought to be permitted to read such a claim into the patent after the combination has gone into use. He might have made as broad a claim as the appellant now makes,—as broad a claim as Finney made; and, if the commissioner of patents had allowed it, all who used such a device as that of the appellee would have done so at their peril, and with full notice of his claim. He did not do so. He restricted his claims to the specific combinations he described, and it is too late to broaden them to cover others now. The statute requires the inventor to particularly point out, and distinctly claim, the improvement or combination which he claims as his discovery. Rev. St. § 4888. The purpose of a claim in a patent is to notify the public of the extent of the monopoly secured to the inventor, and, while it is notice of his exclusive privileges, it is no less a notice, and a legal notice, upon which every one has a right to rely, that he disclaims, and dedicates to the public, any combination or improvement, apparent on the face of his specification, not a mere evasion of his own, which he has not there pointed out and distinctly claimed as his discovery or invention. Every one has the right to use every machine, combination, device, and improvement not claimed by the patentee, without molestation from him. It would work great injustice to permit a patentee, after a combination or device which he did not claim has gone into general use, and years after his patent was granted, to read that combination or device into one of the claims of his patent, and to recover for its infringement of every one who had used it on the faith of his solemn declaration that he did not claim it. *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U. S. 274, 278; *Miller v. Brass Co.*, 104 U. S. 350, 352; *Mahn v. Harwood*, 112 U. S. 354, 357, 361, 5 Sup. Ct. 174, and 6 Sup. Ct. 451; *Wollensak v. Reiher*, 115 U. S. 96, 5 Sup. Ct. 1137; *Parker & Whipple Co. v. Yale Clock Co.*, 123 U. S. 87, 8 Sup. Ct. 38; *Stirrat v. Manufacturing Co.*, 27 U. S. App. 13, 10 C. C. A. 216, and 61 Fed. 980; *Building Co. v. Eustis*, 27 U. S. App. 693, 13 C. C. A. 143, and 65 Fed. 804. When the patent to Adams is read in the light of these principles and authorities and with due regard to the limitations imposed upon it by the state of the art, no claim to the combination used by the appellee can be found in it. The appellee's construction lacks the two main elements of the combination claimed by Adams, the armature mounted upon the driven axle so as to revolve around it, and the field-supporting frame rigidly secured to, or formed in one with, the axle boxes of the driven wheels. All the elements of Adams' combination were old. The absence, from a device that is alleged to infringe a patented combination of old elements, of a single essential element of that combination, is fatal to the claim of infringement. *Hailes v. Van Wormer*, 20 Wall. 353, 372; *Bragg v. Fitch*, 121 U.

S. 478, 483, 7 Sup. Ct. 978; Building Co. v. Eustis, 27 U. S. App. 693, 712, 13 C. C. A. 143, 148, and 65 Fed. 804, 810; P. H. Murphy Manuf'g Co. v. Excelsior Car Roof Co., 70 Fed. 491. The decree dismissing the bill must be affirmed with costs, because the appellee was not guilty of any infringement of the claims of the patent upon which this suit was based. It is so ordered.

MUNICIPAL SIGNAL CO. v. GAMEWELL FIRE-ALARM TEL. CO. et al.
(Circuit Court, D. Massachusetts. December 8, 1896.)

No. 66.

PLEADING IN PATENT CASES—SUPPLEMENTAL BILL IN THE NATURE OF BILL OF REVIEW—NEWLY-DISCOVERED EVIDENCE.

After the affirmance, on appeal, of an interlocutory decree for injunction and accounting, the defendant, by leave of the appellate court, applied to the circuit court for leave to file a supplemental bill in the nature of a bill of review, based upon newly-discovered evidence. The new evidence related to a device which had been set up as anticipatory at the original hearing. The court had then overruled the defense based thereon, not because it would not have been an anticipation, but because the proof of its existence and use was insufficient. The new evidence strongly tended to show a complete commercial use at a time and place designated, and that defendant had used due diligence before the original hearing to discover the circumstances of such use, but had been prevented therefrom by the machinations of defendant. *Held* that, under these peculiar circumstances, the pleading might be filed.

This was a suit in equity by the Municipal Signal Company against the Gamewell Fire-Alarm Telegraph Company and others for alleged infringement of letters patent Nos. 359,687 and 359,688, granted March 22, 1887, to B. J. Noyes, for improvements in municipal signal apparatus. In August, 1892, after a hearing on the pleadings and proofs, this court entered an interlocutory decree for injunction and account. 52 Fed. 464. From this decree defendants appealed to the circuit court of appeals, which, on April 11, 1894, affirmed the same. 10 C. C. A. 184, 61 Fed. 949. After the going down of the mandate, no steps were taken by complainant to have an accounting, and on June 12, 1895, defendants filed in this court a petition for rehearing, and for leave to file a supplemental bill in the nature of a bill of review, based on alleged newly-discovered evidence. This petition was denied by this court for want of power, in the absence of any permission reserved in the mandate of the circuit court of appeals. Thereafter a petition was presented to the circuit court of appeals asking leave to file in this court the said supplemental bill in the nature of a bill of review. The circuit court of appeals, after a full hearing upon the petition, entered a decree merely authorizing the defendants to present a petition to this court for leave to file such bill. 20 C. C. A. 111, 73 Fed. 908. Such petition has accordingly been presented to this court, and supported by affidavits.

The order made by the circuit court of appeals, authorizing the present proceeding in this court, limited the scope of the proposed supplemental bill in the nature