

SICKLES ET AL. V. GLOUCESTER MANUF'G  
CO.

{1 Fish. Pat. Cas. 222; 13 Leg. Int. 388; 4 Blatchf.  
229.}<sup>1</sup>

Circuit Court, D. New Jersey.

Sept., 1856.

PATENTS—EQUITABLE  
JURISDICTION—DISCOVERY—EQUIVALENTS—SCOPE  
OF SPECIFICATION'S—STEAM CUT-OFF.

1. The courts of the United States have their jurisdiction over cases arising under letters patent by statute, and do not exercise it merely as ancillary to a court of law.
2. Having such original cognizance of these controversies they do not in all cases require a verdict at law on the title before granting a final injunction, or concede a right to either party to have every issue as to originality or infringement tried by a jury.
3. A bill praying for a discovery and account of profits, for the infringement of letters patent, will be sustained, after the expiration of the patent although an injunction can not be decreed.

[Cited in *Imlay v. Norwich & W. R. Co.*, Case No. 7,012; *Perry v. Corning*, Id. 11,003; *Vaughan v. East Tennessee, V. & G. R. Co.*, Id. 16,898; *Gordon v. Anthony*, Id. No. 5,605; <sup>95</sup> *Smith v. Baker*, Id. 13,010; *Atwood v. Portland Co.*, 10 Fed. 283.]

4. The comparative value of the complainant's invention and the defendant's machine is a question not relevant.
5. The title or description given to the invention in the grant is never expected to be specific, but only to indicate the nature and design of the invention. The specification, as its name indicates, must be searched for the exact description of what the patentee claims.
6. Courts will always construe letters patent favorably to the patentee, but they can not make a new specification with more extensive claims than the original, or stop the course of inventors by a fanciful application of the doctrine of equivalents.

7. The originality of Sickles' patent for improvement in cut-off valves for steam engines, investigated and established.

[Cited in *Johnson v. McCabe*, 37 Ind. 538.]

8. The slide valves upon what is known as the "Corliss" engine, do not infringe the Sickles' patent. The invention of Sickles is confined to the puppet valve.

[Cited in *Sickles v. Evans*, Case No. 12,839.]

This was a bill in equity [by William B. Sickles and others against the Gloucester Manufacturing Company] to restrain the infringement of letters patent [No. 2,631] for an improvement in steam engines, granted May 20, 1842, to Frederick E. Sickles, and assigned to plaintiff. The patent expired May 20, 1856, previous to which time, the bill had been filed praying for an injunction, discovery, and account of profits. The cause came on for hearing at the September term, 1856, when it was insisted by the respondents that the bill ought to be dismissed, upon the ground, that, the patent having expired, no injunction could be decreed, and the bill could not be sustained for a discovery and account unaccompanied by injunctions. The defense was, that the Sickles patent was void for want of novelty, and that the defendants did not infringe. To defeat the novelty of the invention, evidence was offered that the invention was described and used in England, prior to Sickles' invention, by Watt; that it was used in this country, by one Bennett on the steamer Dispatch, and by one Hogg on the steamers South America and Balloon. The description of the invention and claims of the patentee are very fully set forth in the opinion.

B. F. Thurston, E. N. Dickerson, and C. M. Keller, for complainants.

T. A. Jenckes, S. Blatchford, and W. H. Seward, for defendants.

GRIER, Circuit Justice. The complainants in this case are assignees of Frederick E. Sickles, to whom a patent was granted May 20, 1842, for "a new and

useful improvement in the manner of constructing the apparatus for lifting, tripping, and regulating the closing of the valves of steam engines.”

The bill charges that, in 1843, an issue at law had been tried between the patentee and one John F. Rodman, in which the validity of the patent to F. E. Sickles was put in issue, and that the jury found that said Sickles was the first and original inventor of the thing patented.

It charges also that the defendants “are using and operating an engine constructed substantially on the same plan as patented by said Sickles,” and prays for an injunction and account of profits.

This bill was filed in March, 1853, and since the filing of the bill, viz: on the 20th of May, 1856, the term of the patent expired.

The argument of the case has presented for our consideration three points, on which the decision of it must depend.

1. It is contended that courts of equity entertain jurisdiction of patent and copyright cases only for the purpose of injunction; that the equity for the account is strictly incident to the injunction; and that, therefore, if an injunction is refused, or for any reason can not be decreed, an account can not be given, but the plaintiff must resort to a court of law

2d. It is denied that Frederick E. Sickles is the original and first inventor of the thing patented.

3d. It is denied that the machine used by the defendants infringes the plaintiff's patent.

I. The first proposition may be conceded as a correct statement of the general rule, as settled in England. See Adams, Eq. 219; Hind. Pat. 361; *Baily v. Taylor*, 1 Russ. & M. 73. This doctrine had its origin in the case of *Jesus College v. Bloom*, 3 Atk. 264, and Amb. 54, as applied to bills to restrain waste; but, since that time, the exceptions to the rule have become so numerous, that the rule can hardly be recognized

as existing. The bill needs only to pray a discovery for the purpose of account, and it will be sustained for the account only. See 2 Eden, Inj. (by Waterman) 245.

The proposition, it is said, can not be maintained, that a court of equity will not interfere to direct an account when indebitatus assumpsit will lie at law. Nor is the converse of the proposition true, that equity will decree an account in all cases where an action for money had and received, or indebitatus assumpsit, may be brought.

But, whenever the subject-matter can not be as well investigated in those actions, a court of equity exercises a sound discretion in decreeing an account. See *Carlisle v. Wilson*, 13 Ves. 214, etc.

As it appears in this case that, in order to ascertain the extent of the plaintiff's damages, it might become necessary to have a discovery and account of profits from saving of fuel by using his invention, I see no good reason why the court might not retain jurisdiction of the case for that purpose, even on the principle of the English cases.

The jurisdiction of the court ought not to depend on the accident of the date of its decree. If, in this case, the decree were dated on the 19th of May, 1856, the jurisdiction of 96 the court could not be doubted, while it is challenged as impotent to give any decree on the 21st of the same month. If the complainants are able to sustain their case on the other points, and it was absolutely necessary to sustain our decree, that an injunction form a part of it, I would order the decree to be entered nunc pro tune as of the date of the 19th of May last. The delays of a court of chancery should not be suffered to operate as a bar to the complainant's suit.

But the courts of the United States have their jurisdiction over cases of this nature by statute, and do not exercise it merely as ancillary to a court of law. The seventeenth section of the patent law of 1836

ordains that “all actions, suits, controversies and cases arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States.”

Besides this original and general cognizance or jurisdiction over the whole subject-matter, a special power is conferred on the circuit courts to grant injunctions. Having such original cognizance of these controversies, the courts of the United States do not, in all cases, require a verdict at law on the title, before granting a final injunction, or concede a right to either party to have every issue as to originality or infringement tried by a jury.

Exercising our jurisdiction in these controversies, not by assumption for a special purpose only, or as ancillary to other tribunals, but under plenary authority conferred by statute, the technical reason which compelled the English chancellor to refuse a decree for an account where he could not decree an injunction, can have no application.

This first point is, therefore, overruled.

II. Is Frederick E. Sickles the first and original inventor of the improved machine claimed in his patent of May 20, 1842?

On this point, I must say that, after a careful examination of the very voluminous and contradictory testimony relating to it, I feel satisfied that Frederick E. Sickles is the first inventor of the improved machinery for effecting a cut-off in steam-engines, as described in his patent.

Others may have, about the same time, or even before him, conceived the idea of tripping puppet-valves, that they might fall suddenly into their seats, and thus avoid wiredrawing the steam; but they had failed in giving it practical effect. It required, perhaps, no great degree of mechanical ingenuity to invent a

mode of detaching a valve at a given point; and it is true, also, that water had been before used, to retard the motion of falling bodies. But no one had succeeded in inventing a combination of devices, by which a valve could be tripped at any given point, before or after half-stroke, and made it practically useful, by adding thereto devices by which the motion or momentum of the falling valve might be arrested at the very moment of closing, without the slam or jar which would otherwise be destructive of the valve and its seat.

That this invention of Sickles is one of very great value, is also clearly established. But it has met the usual fate of such inventions. Undervalued and even persecuted at first by ignorance and prejudice, when, at length, it has compelled an acknowledgment of its merits, every contemporary failure to do the same thing, is raked from oblivion, antedated, and its merits magnified, by the fruitful imaginations of willing or malevolent witnesses.

It is not my purpose to defend this opinion by a tedious exhibition and comparison of the testimony. The whole subject is difficult and embarrassing to one who is not a practical engineer, and an attempt at explanation would be unsuccessful, without the assistance of drafts or models. Stating results, therefore, without attempting to support them by argument, my opinion is—

1. That the detaching apparatus used by Watt was different both in its devices and its objects, from that used by Sickles. Watt used a latch to hold fast the moving parts, which served as a trigger to let a weight fall which opened the valve suddenly, while it was gradually closed by the action of the engine. The Watt dash-pot was not intended, and was wholly incapable, to effect the purpose of Sickles' dash-pot. The one was used to retard the closing of the valve, which would be otherwise suddenly jerked into its seat by the pressure

of the steam—the other, to accelerate the closing of the valve, and arrest its motion precisely at that point, so as to prevent what it technically called “slamming”—a problem not solved by Watt, and a result not sought for or produced by him.

2. Bennett’s cut-off arrangement on the “Dispatch” was an unsuccessful attempt to do what Sickles has succeeded in doing. Bennett had a contrivance to detach or trip his valve, but his attempts to arrest its momentum at a given point, by a dash-pot, were wholly unsuccessful. The evidence on this point tends to show this only—that others had perceived the benefit to arise from a sudden closing of the valves; that they had a notion that water or air might be used somehow to prevent the injurious concussion, but had wholly failed in devising the means to effect it.

3. The invention of Hogg, erected and used on board the “South America.” The truth with regard to this, when sifted out of the voluminous and contradictory testimony, seems to be, that Hogg had devised a tripping apparatus about 1838-‘39, for the “Balloon,” which was not used, and which, for want of some invention to prevent the slamming, never could be used successfully; that this attempt was again repeated in the spring of 1841, on the “South America,” and experiments were made both with air and water, which were unsuccessful, till Sickles, by a 97 letter (signed Finisher), suggested to them his invention, and requested them to try it. They accepted his suggestion, used his invention, and then denied his right to it.

Several witnesses have been produced to antedate this successful use of the dash-pot before the receipt of the Finisher letter. It is remarkable that Hogg, the pretended inventor, is unwilling to swear to the fact, while others, who were apprentices at the time, have grown up into a recollection of dates now, after fifteen years, varying from their recollection of the

same events ten years before, when this issue was tried by a jury and found in favor of Sickles.

It has happened in this case, as in many others, that the party producing a witness has to rub the rust off his recollection of many things, and more especially of dates. In doing this, he may leave marks which did not exist before. Hence, witnesses are often found to swear boldly as to dates, ten or fifteen years after the event, and in complete contradiction to their testimony given soon after the event; and much more may this be the case, where, under pretence of secret examination in chancery, the answers to the interrogatories are drawn up by the party or his attorney.

III. We come now to the last and most difficult question in this case—that of infringement.

This involves a comparison of the invention of Sickles, as claimed in his patent, with the machine actually used by the defendants. The comparative value of the complainant's invention and those patented to Corliss is a question not relevant. Nor need we inquire whether the defendants infringe what Sickles might have claimed as his invention, if his specification had been drawn up by the very able and learned counsel of complainant, with their present knowledge of the arts. The subjects to be compared are not the black model, with such a generalization of its principle as may now be made, and the machine of defendants. We must take the specification of plaintiff's patent, and see what he there claims to have invented, and see if the machine used by the defendants has infringed any of these claims as set forth therein.

The law requires every patent to "contain a short description or title of the invention or discovery, correctly indicating its nature and design, etc." The law requires also, as a condition precedent, that "before any inventor shall receive a patent for any such new invention or discovery," he shall deliver a written



description of his invention or discovery, etc., “and, in case of any machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character, “by which it may be distinguished from other inventions, and shall particularly specify and point out the part, improvement, or combination which he claims as his own invention.”

The short description or title of this invention, as contained in the patent, is “a new and useful improvement, in the manner of constructing the apparatus for lifting, tripping, and regulating the closing of the valves of steam engines.” Now, though this term—“valves of steam engines”—might include “slides,” or sliding valves, as well as puppet valves, yet the terms, “lifting, tripping, and regulating the closing,” would seem to point more particularly to what are known as puppet valves. For, it appears from the evidence, that other valves do not require to be lifted, nor were they subject to the difficulties with regard to closing which adhered to the valves most commonly in use, to wit: puppet valves.

But, the title or description given to the invention in the grant is never expected to be specific, but only to indicate the nature and design of the invention. The specification, as its name indicates, must be searched for the exact description of what the patentee claims. This seems to set forth two separate improvements, not claimed jointly as one machine, but as distinct improvements of two separate parts of a known machine. The patentee describes his invention thus: “certain improvements in the manner of constructing” and arranging the apparatus for lifting and tripping the valves of steam engines, and by which the steam can be more readily cut off at any desired part of the stroke, than by the means heretofore adopted; and, also, an improved water reservoir and plunger, which serves to prevent the slamming of the valves in closing,

and consequently to preserve them in good working order for a great length of time.

In this description of his invention, the patentee does not claim to be the first inventor of apparatus for lifting and tripping valves, but to have invented “improvements in the manner of constructing and arranging” it; the object of it being that “steam can be more readily cut off at any desired part of the stroke.” Thus far, too, he uses the general term “valves,” though he speaks of “lifting and tripping” them—terms more especially applied to puppet valves. Nor does he pretend to be the inventor of water reservoirs or plungers, on which others were then experimenting, though unsuccessfully, but of an “improved water reservoir and plunger.”

The specification then proceeds to describe particularly the invention:

1. The “valve box containing the puppet valves which are to be lifted and closed.”

Here we have a known machine the subject-matter of the improvement. The next thing described is the valve stem, passing through the stuffing box, on the bonnet of the valve box. Thirdly, a lifter, acted on in the usual way, which is to raise the valve. Thus far it describes the puppet valves, and the well known parts of the apparatus for lifting them. It next describes a spring attached to the shaft 98 of the lifter, the outer ends of which embrace the sides of the valve stem. Here commences his improvement.

2. The next device peculiar to the invention is the projecting edges, or feathers, which, while the valve is being lifted, rest upon the upper edges of the spring.

3. The next device applicable to his improvement is a standard, rising vertically from the valve box, so that its upper flat end shall be nearly in contact with the outer ends of the springs.

The purpose of this standard is to support the fourth part of the improvement—an adjustable sliding-

piece, which may be shifted, and held to its place by a screw. On the face of this sliding-piece, there are two projecting, wedge-formed pieces, or inclined planes, which serve to open the ends of the springs, and liberate the stem. When the stem is liberated at its greatest rise, the steam will be cut off at half-stroke; if placed lower, at proportionably less than half-stroke; and, if the wedges be reversed, at more than half-stroke.

A fifth part of the combination, for the purpose of effecting the immediate cut-off, in order to cause the stem to descend instantaneously, when the spring is opened, is a spring on the upper side of the lifter, to which it is attached by one end, while the other end bears upon the stem.

Thus far, in compliance with the patent law, in its first requirement, a written description of the manner of constructing the machine, so as to enable any person skilled in the art to construct it, is exhibited. But, as the invention comes within the category of a machine, the law requires the specification to explain the principle, and the several modes in which he has contemplated the application of that principle. Now, I do not find, thus far, any general abstract statement of the principle of his invention, or how it may be applied to any other than puppet valves. Taking the word "principle" to mean the "modus operandi," the specification describes how a puppet valve, raised in the ordinary way, may be tripped at any given point, but gives no intimation of any other "mode in which he has contemplated the application of that principle," to an entirely different species of valves, which are not lifted up from their seat, nor disposed to fall into it by their own weight, when tripped, or set at liberty.

The subject-matter of the improvement selected by the patentee, is a puppet valve, acted on in the usual way, connected with a valve stem, and raised by a lifter. The devices for tripping the valves are connected

with these parts, without an intimation of any general or abstract principle which may be applied to other or all possible kinds of valves.

In obedience, also, to the requirements of the law, that the patentee shall “particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery,” the claim to this part of the invention is thus set forth: “I claim the manner in which I have combined and arranged the valve stem B, the spring F, on the lifter, the adjustable sliding piece I, with its wedges or inclined planes and then immediate appendages, so as to co-operate with each other and to effect the tripping of the valves, and the cutting off of the steam, substantially in the manner set forth.

The claim here is for the “manner” of combining or arranging, or in other words, a combination and arrangement of certain devices, viz: the valve stem, the spring, the wedges, and their immediate appendages, so as to co-operate with each other and effect the tripping of the valves, and cutting off of the steam.

Of course, this will include all combinations of these devices, to effect the same purpose, which are substantially the same, or, in other words, are mere colorable changes of some of the parts.

Now, it is to be observed that the patentee does not claim to be the first inventor of the scheme of tripping valves in order to make them close suddenly and prevent wire-drawing; but, thus far, he claims only a combination of certain devices as an improvement in the manner of tripping the valve or setting it loose from the gearing so that it may return quickly to its seat.

On the question of the substantial identity of the defendants' machine with this claim of the Sickles patent, the experts, as usual, are diametrically opposed. If it were a question depending on the veracity of the witnesses, and the mere weight of testimony as

to the truth of a fact, I should be glad to have the verdict of a jury on which to repose. But, where it is the mere difference of opinion between men of equal skill and experience, I can not lean with equal confidence on the opinion of twelve men, who can hardly be supposed to have either superior knowledge or experience. I am willing to transfer responsibility from my own shoulders to those of a jury whenever I conscientiously can. I have endeavored to submit my mind to the verdict rendered on this subject in an adjoining district, and have listened, with a willing ear, to arguments showing the correctness of that decision. It may probably arise from some obliquity in my own mental vision, or want of clear ideas on these intricate subjects. But, I can not bring my mind to the conclusion that the machine of the defendants is an infringement of the plaintiff's claim in this behalf, as set forth in his patent. This point was, in fact, not submitted to the jury. But a certain model was exhibited, which was treated as incorporating the complainant's invention, and a like model of the defendants' machine which included the inventions patented to Corliss. No construction of the claims of the Sickles patent was given 99 to the jury. But certain generalizations, or abstract definitions of the principles, or modus operandi of the machine, as exhibited by the model, were assumed, by the very ingenious and skillful experts, as the subject of the comparison. Thus, the whole machine, without separating the new from the old, or defining the extent of the improvement claimed by the patentee, was tacitly assumed to be the invention of the patentee, and, by means of the doctrine of equivalents, astutely used, every other mode of opening, shutting, or tripping valves could be demonstrated to be substantially the same, if the same result were produced by any mechanical combination whatsoever.

Experience has shown that inventions which, to support their claim to originality, were made narrow enough to pass through the eye of a needle, when once established, and in a battle with supposed infringers, become as large as camels.

In this case, the patentee has devised a new "manner," or method, or arrangement of machinery for tripping "puppet valves." The combination and arrangement of parts, as claimed by him, have all reference to that peculiar sort of valve, nor does the specification set forth any general "principle," or any other "mode in which he has contemplated the application of that principle" as applicable to valves of a totally different character and mechanical action. I can not discover in the defendants' machine the complainant's "manner of combining and arranging the valve stem B, the spring F, on the lifter, the adjustable sliding piece, etc."

The valves of the defendants are those which slide in the arc of a circle, which are not lifted up, as puppet valves having a valve stem passing through a stuffing box, by which they are raised from their seats. The peculiarity of the action of this circular valve requires a different and peculiar valve gear. Four several rockshafts, which actuate the four valves, receive their motion from the eccentric on the main shaft, communicated by it to a wrist plate, which is, in effect, four arms or cranks set at different points around a circle. These hook rods, as they are called, moved by this wrist plate, have a longitudinal as well as a lateral movement, by means of which, in combination with other parts of the machinery, the valves may be detached or tripped at certain periods of the movement, up to half-stroke. This is regulated by a sliding bar connected with a governor, so that the cut-off may be effected at a variable point under half-stroke, and may be automatic. The particular devices, and their action, could not be intelligibly described

without models or drawings. I shall not, therefore, attempt to specify them.

Now, as Sickles' claim, as exhibited in his patent, is only for an improvement in the "manner of constructing and arranging the apparatus for lifting and tripping the valves," and for the manner of combining the valve stem, the spring, etc., I am unable to see that the defendants' contrivances are merely colorable changes, or that the devices they use are merely mechanical equivalents, for those used by the complainant. By an abuse of this doctrine of mechanical equivalents, experts can demonstrate every machine which effects a certain purpose, to be substantially the same with every other which effects the same purpose. I do not see the combination of the patent in the defendants' machine, nor any hint in it how the devices described as applicable to puppet valves could be accommodated to sliding valves, nor any attempt in defendants' machine to invade the plaintiff's rights, by colorable evasions of his claims.

Whether it required invention to make the combination in defendants' machine, after seeing that of complainant, is a question on which experts differ.

But it is not an unusual case, even among learned engineers, to see a thing after it is done, which never occurred to their minds before. I am disposed to distrust that wisdom which succeeds the event.

But, the decision of this portion of the case is of very little importance, as the subject of the first claim in the patent is wholly useless without the second. The patentee seems to have claimed two several improvements in the steam engine, neither of which is of any benefit without the other, and has not claimed the whole as one machine, which he might well have done.

2. We come now to the second claim of the patent, called the "Sickles dash-pot."

If the claim in the patent had been stated in the terms used by the learned counsel, in their interrogatories, this point would be easily decided. For, if the defendants' device for cushioning the weight of the valves on air had to contend with the following claim, they must undoubtedly succumb: "I claim the combination of any fluid whatever, with a dash-pot and plunger, so arranged that the plunger, in descending, when near "the end of its fall, confines the fluid beneath it, so as to arrest the violent motion without concussion or slam, for the purpose of stopping the motion of ponderable bodies, without destruction of the parts, in an insensibly short space of time."

But, as this is not the claim made by the patentee, the question of infringement is one of much more doubt and difficulty. The defendant has to contend with the claim as set forth in the patent, and not with the ideal or abstraction presented by the learned counsel. The specification describes this portion of the invention in general terms, as follows: "And also an improved water reservoir and plunger, which serves to prevent the slamming of the valves in closing, and consequently to preserve them in good working order for a great length of time."

This water reservoir is described as attached to the lower side of the valve box. 100 Its interior is cylindrical, and has Within it a cup, or secondary reservoir, adjusted toy a graduating screw. The continuation of the valve stem has a plunger, or piston attached to it When the valve is stripped, and falls to its seat, the plunger enters the cup, "into the upper cylindrical part of which it passes freely, and to such depth as may be found necessary, which is determined by means of the graduating screw."

"The reservoir is to contain water, oil, or other fluid, say to two-thirds of its hight, more or less." The object and purpose of this apparatus is said to be, that "the valves may be made to shut so silently as scarcely to be



heard, while the retardation is so perfectly graduated as not to be accompanied by any sensible loss of time, as it takes place in the last moment of their descent only.”

Under this head the claim of the patentee is as follows: “I also claim the manner of regulating the closing of the valves, and of effectually preventing them from slamming, by means of a water reservoir, furnished with a piston, or plunger, attached to the lower end of the valve-stem, and operating within an adjustable cup, or secondary reservoir, so as to effect the purpose intended, upon the principle, and substantially in the manner herein described and made known.”

It is apparent that the apparatus described in the first claim, for tripping the valve and that described in the second, must be combined to effect the purpose intended. For, if the valves, when tripped, should be suffered to fall to their seats, without being checked by the device described in the second claim, the whole apparatus would be practically useless. The two things constitute one whole invention, having for its subject the valves known as puppet or lifting valves. The object and purpose of the water reservoir is to prevent the slamming of these valves in closing, which would otherwise destroy the machinery. Although the specification mentions “water, oil, or other fluid,” it is plain that the word fluid is used in its popular sense, as a synonym for liquid. Water and other liquids are practically non-elastic, while air and gases are elastic and compressible.

Water acts by displacement, or by a gradual diminution of the volume of escape, and air by compression. Steam, as an elastic substance, is used to cushion the piston in every steam engine, and hinder the jar from its sudden arrest. The claim is for regulating the closing of valves, and preventing them from slamming, by means of a “water reservoir.” There

is no intimation that an elastic fluid could be used for the same purpose, or how it should be used. The experiments made since the trial, to show that air may be used in place of water, by some slight alterations, or for a short time, or on small engines, with light valves, is a discovery made since the opinion of Judge Nelson was delivered, and for the purpose of showing that he was mistaken in the facts.

Now the device used by the defendants, which is said to be an infringement of the Sickles dash-pot, differs from it in these essential particulars:

1. It is not a "water dash-pot," using the term water to represent all liquids.
2. It is not used for the purpose of regulating the closing of the valves, and preventing them from slamming. Although that phrase is used in the Corliss patent, it is very plain, that with a sliding valve turning on an axis, there can not be that slamming which arises from the fall of a puppet valve, nor a necessity for that nice adjustment in closing it.
3. The invention of Sickles had in view not only the sudden closing of a puppet valve, but the arresting of it precisely at the very moment of closing. Hence the necessity for the adjusting apparatus of his cup. The defendants require only the arresting or cushioning of a falling weight, so that it may not jar the general machinery of the engine.

No particular accuracy is required, as the valve is closed before the weight is arrested; and the air used to cushion the weight, may, by its elasticity, raise the weight above its lowest depression, without affecting injuriously the object or purpose of the device. This weight, too, is not necessarily connected by a rigid connection with the rock shaft, but would operate with a string. Corliss wanted nothing but a cushion for his weight.

That either air or water might be used to arrest the descent of a falling body, or cushion a piston, were well known facts. His device was to make his weight in shape of a piston falling in a socket, with a small hole pierced near the bottom.

In fine, Sickles had showed an improved manner of tripping a puppet valve, and preventing wire-drawing by its sudden closing. This had been done before, but, as a machine or improvement, it was, by itself, useless. The great problem solved by Sickles was—how to have the benefit of this sudden closing without the destructive slam, or jar, consequent on the sudden closing of that species of valves by falling to their place. He has skillfully overcome this difficulty by means of a water reservoir with an adjustable cup, and has made a very valuable improvement, for which he has probably never received sufficient recompense.

Corliss has invented an improved method of opening and shutting circular slides, or sliding valves; has shown another combination of devices for tripping the valve, and how his falling weight used to close the valve may be cushioned without jar on an air cushion. One has perfected one combination of devices for tripping a puppet valve—the other a different one for a different sort of valve. One has discovered and perfected a water reservoir to prevent the destruction 101 destruction of his valves when falling into place. The other has converted his falling weight into a piston working into a socket and cushioned on air, so as to break the shock of its fall. They have each perfected a different machine, by appropriate devices, so as to operate beneficially; and I can not perceive that the combination of elements in each is the same, or that their difference is merely colorable, and not substantial.

If the whole question of infringement had been left to the jury on the trial in New York, I would have held the parties concluded. But the jury was asked in that

case to give a verdict which should exhibit the result of a comparison, while no definition of the extent of the claims of the patent was given to them. They were left to compare the defendants' machine with an ideal claim, which the very able and learned counsel, with their present knowledge of the subject, have shown might have been made if the inventor, or the person who drew his specification, had been fully aware of the principle and extent of his discovery or invention.

But the law requires a clear and particular specification of the principle and several modes in which the patentee contemplates its application. Courts will always construe these instruments favorably to the patentee; but they can not make a new specification with more extensive claims than the original, or stop the course of inventors by a fanciful application of the doctrine of equivalents. The plaintiff's patent claims only to have invented a new mode of regulating the closing of valves (such as were described throughout his patent), and of effectually preventing their slamming by means of a water reservoir, furnished with a piston or plunger attached to the lower end of the valve stem, and operating within an adjustable cup, etc.

The fact that air might have been used successfully by some slight alterations, and that the invention of each may use the agent of the other, is but an accident of this case, discovered since the litigation arose. The specification of the patent gave no notice to the world that it claimed cushioning the fall of all ponderable bodies, by means of both elastic and non-elastic fluids. To give it that construction now, would be granting a new patent; and, without such an amendment of the specification, the defendants machine, which does not embody the combinations of the patent either in form or functions, can not be truly said to infringe it.

The complainant's bill is therefore dismissed, because the court is not satisfied that the defendants'

machine infringes the patent granted to plaintiffs, and for no other reason.

{For other cases involving this patent, see [Sickels v. Youngs, Case No. 12,838.](#)}

<sup>1</sup> {Reported by Samuel Fisher, Esq., and here reprinted by permission. 13 Leg. Int. 388, contains only a partial report.}

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