of dredgers of the general character of the one in issue. In that class of litigation in which results can affect no interests except those of the parties to it, the court may well give weight to declarations of that nature; but with reference to a patent for an invention, which is of public concern, such declarations are of little consequence, and neither the inventor nor the alleged infringer can be permitted to substitute his own acts or opinions for the judgment of the court. It is a thoroughly well settled principle of patent law that in clear cases the court may, of its own motion, adjudge a patent invalid, even if its invalidity is not set up by the alleged infringer. Much more would it refuse to be controlled by evidence of the kind which the complainant thus brings to our attention.

We have so many times said that the rules by virtue of which we sustained the patent in Watson v. Stevens, 2 C. C. A. 500, 51 Fed. 757, have a narrow application, that we need not trouble to elaborate the fact that they cannot help the complainant in the case at bar. The decree of the circuit court is affirmed, with the costs of this court for the appellee.

BLOUNT MANUF'G CO. v. BARDSLEY.

(Circuit Court of Appeals, Second Circuit. May 12, 1896.)

No. 97.

1. PATENTS—INVENTION AND INFRINGEMENT—COMBINATIONS—DOOR CHECKS.
   The Blount patent, No. 289,380, for an improvement in door checks, and in which the distinguishing feature is a liquid regulating cylinder, separated from the actuating spring, and having a by-pass, *held* valid and infringed as to the second claim, which must be restricted to the combination shown. 66 Fed. 761, affirmed. Wallace, Circuit Judge, dissenting.

2. SAME—INTERPRETATION OF CLAIMS.
   Where certain claims of a patent described a shaft as connected with a piston "to operate the same," and "to operate the same and be operated thereby," but without showing how the connection was made, *held*, that the connection was not necessarily an actual attachment incapable of separation, but such a relation of parts as would produce simultaneousness of motion between the shaft and piston, and that the claims therefore covered a cam connection. 66 Fed. 761, affirmed. Wallace, Circuit Judge, dissenting.

3. SAME—DOOR CHECKS.
   The Blount patent, No. 458,357, for a "door check and closer," *held* valid and infringed as to claims 2 and 3, which must, however, be restricted to the specific combinations shown and described. 66 Fed. 761, affirmed. Wallace, Circuit Judge, dissenting.

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

This is an appeal from an interlocutory decree of the circuit court, Eastern district of New York, entered on May 9, 1895. Two patents, each containing several claims, were before the circuit court. A decree for an injunction and accounting was entered only as to the

second claim of one patent, and the second and third claims of the other patent. See 66 Fed. 761. The correctness of the decision of the circuit court as to these claims only is to be inquired into upon this appeal.

Charles C. Gill and Edmund Wetmore, for appellant.

Melville Church, Joseph B. Church, and Charles E. Mitchell, for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

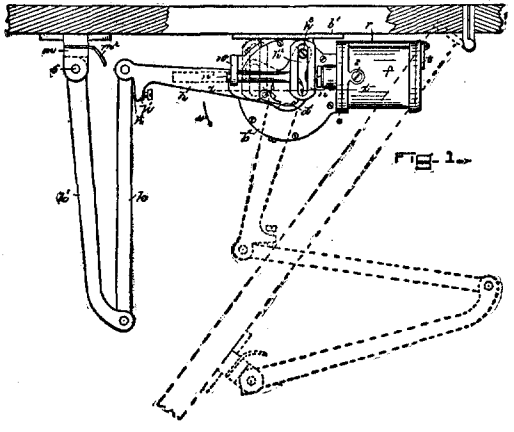
LACOMBE, Circuit Judge. The first patent is No. 289,380, granted December 4, 1883, to Eugene I. Blount, for what the patent office called a "pneumatic door check." The patentee described his invention as "an improvement in door checks"; and as he uses a liquid, "preferably oil or glycerin," instead of air, in the checking cylinder, the title selected by the patent office is inaccurate. The following excerpts from the specification sufficiently indicate the object of the invention, and the means employed to secure that object:

"My invention relates to a door check, or apparatus for automatically closing the door without slamming it; and it has for one of its objects to enable the movements of the door to be more perfectly controlled than by the devices heretofore employed. The invention is embodied in an apparatus having an actuating spring, and an arm operated thereby with an oscillating movement when the door is opened or closed; the said arm being connected, as hereinafter described, with the door, and with a controlling or cushioning cylinder, to retard and regulate the movement of the said arm in closing the door. The end of the arm is connected with the door by jointed levers or connecting rods; and means are provided for adjusting the strength of the spring when desired, and also for adjusting the cushioning effect of the cylinder, which contains a fluid and a piston provided with a valve, allowing the fluid to pass through it when moving in one direction through the cylinder, as in opening the door; the said valve closing, and causing the fluid to be forced around from one to the other end of the cylinder through a suitable passage controlled by a valve in the return movement of the said piston, as in closing the door. The piston has a piston rod connected with the spring-pressed arm that operates on the door, and the connections are so arranged that the leverage of the arm or power of the spring acts with least advantage when the door is widest opened, thus causing a rapid movement of the door when it begins to close, the resistance of the fluid at the same time operating with the least advantage; and as the door closes the leverage of the spring increases, as well as the force derived from the resistance of the fluid in the cylinder, so that the door is finally closed with a slow but powerful movement."

Here follows a description of the details with reference to the drawings. The spring chamber and the liquid chamber are independent of each other. No part of the spring enters the liquid chamber, and it is not possible for any of the liquid, when under pressure, to find its way into the spring chamber. It is strictly confined to the liquid chamber, and to the by-pass which connects the two ends of that chamber. An arrangement for increasing the retardation of flow into the by-pass by means of a series of ports, which are successively closed by the advancing piston, is shown, but it forms no part of the claim involved in this appeal. From the spring chamber there projects the end of the spindle around which the spring is coiled. It is revolved in one direction by the spring, and in the

other direction by the opening of the door. The motion which the spindle receives from the spring it communicates to an arm, which itself transmits the same, through levers, directly to the door. This is the door closing part of the apparatus, and it is checked for the purposes above set forth by the resistance of the piston rod which projects from the regulating liquid cylinder. This resistance is not applied directly to the door, nor to the levers, nor to the arm which connects with the levers, but to a crank projecting about at right angles from the arm. Connection is made with the piston rod by a pin on the crank which plays in a slot on the piston rod, arranged at right angles to its line of motion. The specification proceeds:

"It will be seen that when the door is nearly closed the crank, h^{12}, is nearly at right angles to the line of movement of the piston rod, and consequently the retarding force of the liquid then acts with maximum leverage, thus checking the movement of the door, and causing it to close without slamming; and at the same time the spring acts, through the arm or lever with the maximum leverage, thus having the greatest power upon the door, as is necessary to close and latch it. In the movement of the arm, h, when the door is opened at about right angles to the casing, the crank pin, h^3, will travel through the slotted crosshead with the crank nearly in line with the piston rod, which is thus at or near its dead center, and almost powerless to resist the movement of the arm, h, under the action of the spring; and the door consequently begins to close from its wide-open position, with very little retardation from the fluid in the regulating cylinder, and will move rapidly until nearly closed."



The second claim of this patent reads as follows:

"(2) The actuating spring, and mechanism for transmitting its force to the door, combined with the regulating cylinder, having a passage connecting its ends, and a controlling valve therefor, and the piston provided with ports through it, and a valve controlling them, and its piston rod operating upon the said mechanism actuated by the spring, substantially as described."

The record in the case is voluminous, there have been very many patents introduced illustrative of the prior art, and the argument has taken a wide range. Prolonged study of the case, however, has led to the conclusion that the subject is a narrow one, and there is little to add to the brief opinion filed in the circuit court. Blount was mani-

festly no pioneer in the art. Norton had pointed out the advantages of, and shown how to effect, "an increase in the rapidity with which the piston is driven home as the door nears the jamb, so that the resistance * * * in the cylinder in front of the piston will not materially affect the motion of the piston until the piston has been driven nearly home, and the door is about to strike the jamb." Norton's device was a pneumatic door check, and both spring and air operated in the same chamber; but Oldham had used a liquid as the resisting medium, and had separated the liquid cylinder from the spring. No liquid regulating cylinder, with a by-pass, is found in the door-checking art, before Blount; but by-passes are shown in the Tice patent for a rowing-exercise machine, in the Guidicelli French patent for checking motion imparted by a spring to turn a spit, and elsewhere. The record indicates that improvements were needed before the Blount apparatus became commercially successful, but that it is an operative closer and check the working model put in evidence plainly indicates. We concur, therefore, with the conclusion of the judge who tried the cause in the circuit court, that the parts of the second claim and their arrangement "together quite obviously constitute a door closer and check different from, and better than, that of either Oldham or Norton, whose devices are nearest to these parts. These and the other earlier patents show similar parts in other arrangements for other purposes, but nothing shows them working together in any arrangement like this for this or any other purpose. The taking of these parts and bringing them together, and making them work in this arrangement, was more than mechanical, and appears to have well amounted to a patentable invention." At the same time, we are clearly of the opinion that the state of the art precludes any construction of the patent as a pioneer invention warranting a broad and liberal application of the doctrine of equivalents. The patentee is entitled only to the precise combination shown in the patent and covered by the claim. This includes: (1) An actuating spring, producing circular motion on a spindle. (2) Mechanism for transmitting its force to the door, though whether two or three levers are used in such transmission is immaterial. The specification provides for variations in that particular. (3) A regulating cylinder combined with the other parts, but not itself containing the spring, and so arranged that the liquid whose elasticity under pressure acts as a regulator is confined to the regulating cylinder and the by-pass. (4) A by-pass connecting the ends of the cylinder. (5) A controlling valve for the by-pass. (6) A piston moving in the regulating cylinder. (7) Ports in the piston. (8) A valve controlling the piston ports. (9) A piston rod. (10) A connection between the piston rod and the spring-actuated mechanism; this connection to be of such a character that it will permit the piston rod to operate upon the spring-actuated mechanism "substantially as described." i. e. so as to produce the described effect of gradually accelerating the motion of the piston during the door-closing operation, either by means of a pin on the crank arm playing in a slotted crosshead on the piston, or by some simple mechanical equivalent for such a method of bringing the two motions originating respectively in the spring and the

liquid into opposition, through the operation of the piston rod upon the spring-actuated mechanism.

The history of the patent, as disclosed by the file wrapper and contents, has no bearing upon this second claim. It was originally the fourth claim, and was allowed in the very language in which it was first expressed. The other claims, original and amended, which were disallowed, were evidently broader than this. None of them contained the by-pass and regulating valve therefor.

The defendant's door check differs widely in appearance from that of the Blount 1883 patent. The art has progressed, and the cumbersome apparatus, with most of its parts uncased, unsightly, and liable to accidents, has been gradually reorganized into a compact and protected structure. Still the very device made by defendant contains every element of the combination of the second claim. It has an actuating spring, inclosed in a spring chamber, and producing circular motion on a spindle; also, mechanism, consisting of two levers, for transmitting the spring force to the door. It has a regulating cylinder, not itself containing the spring, and so arranged that the liquid which it contains is strictly confined to the regulating cylinder and the by-pass. None of the force engendered by the resistance of the liquid to compression is dissipated by its escape out of the regulating cylinder. Defendant's device has the by-pass and controlling valve therefor; and, although the by-pass does not extend from one end of the cylinder to the other, it does extend so far as to have its inlet in advance of the piston, and its outlet behind the backward range of the piston. There is also a piston moving in the regulating cylinder. There are ports in the piston, and a valve controlling them. There remains only the piston rod, and the connection between it and the spring-actuated mechanism. The defendant uses an elongated piston, which he describes as "a piston having the heads, f, g, and the middle portion cut away." In other words, two disks, of diameter sufficient to fit the bore of the regulating cylinder, are joined to each other by rods cast integral with the heads, and of such length as to leave an open space of an inch and half to two inches between the heads. Only one of these heads acts as a piston. It is provided with ports and a valve. The other head and the connecting rods act as guides to hold the piston head in place, and they move with it. They form in reality the tailpiece of the piston head, as much as the ordinary piston rod does. The two motions generated by the spring and the liquid, respectively, are brought into opposition, not on the outside of the casing, as in Blount's 1883 patent, but within the liquid cylinder. This is, no doubt, an improvement, but it is none the less within the second claim. This operation is effected by an eccentric or cam (which is the equivalent of a crank arm) on the spindle, which projects downward into the liquid chamber. This cam is inserted into the open space between the two heads of the piston, which, with their connecting rods, are a very close equivalent of the slotted crosshead in the piston rod of Blount. The expert evidence leaves little doubt that the operation of the cam or crank and the elongated piston produces the same effect in gradually accelerating the motion of the piston during the door-closing operation;

and certainly the means employed, though differing in appearance, seems to be mechanically the same. When the piston is being drawn back by the opening of the door the eccentric cam or crank engages with the forward surface of the rear head of the elongated or two-headed piston, just as in Blount's 1883 patent the pin on the crank engages with the forward surface of the rear-head of the slotted crosshead on the piston rod. When the piston is moving forward under the actuation of the spring-closing mechanism, the eccentric cam or crank encounters, and struggles against the force of, the resisting liquid, by engaging with the rear surface of the forward head of the elongated or two-headed piston, just as in Blount's 1883 patent the pin on the crank engages with the rear surface of the forward head of the slotted crosshead on the piston rod. The circuit court therefore correctly found that defendant uses the combination of Blount's 1883 patent, and infringes its second claim.

The second patent sued on is No. 458,357, issued August 25, 1891, to Eugene I. Blount, for "a door check and closer." The second and third claims, which the circuit court held to be valid and infringed, are as follows:

"(2) A door check embracing in its construction a closed spring chamber; a liquid chamber below said spring chamber, arranged at right angles to the spring chamber; an oscillatory shaft extending through said spring chamber into said liquid chamber; and a piston having a valved port, and longitudinally movable in said liquid chamber at a right angle to the axis of said shaft,—the latter being connected to the said piston to operate the same as set forth.

"(3) A door check embracing in its construction a vertically arranged spring chamber; a closed liquid chamber arranged at a right angle to the axis of the spring chamber; an elongated piston in said liquid chamber, adapted to operate longitudinally of said liquid chamber, and having a valved port, and provided at its front and rear ends with bearings to substantially fit the interior of the chamber; and a shaft extending through the said spring chamber into the liquid chamber, and connected with the piston, to operate the same and be operated thereby, as set forth."

This patent professes to cover only improvements upon Blount's 1883 patent. It is to be closely construed. Many of its specific features are shown in patents intermediate 1883 and 1891; but the precise combination set forth in the claims above quoted is not found therein, and we agree with the circuit court in the conclusion that it presents patentable novelty. If the defendant manufactured the "combined door spring and check" of his own patent, No. 464,951, December 15, 1891, he would not infringe, because both the claims above quoted call the one for a "closed spring chamber," the other for a "closed liquid chamber"; and, since both chambers are required to be in juxtaposition, this language imports such a partition between them as will prevent the escape of liquid from the liquid chamber into the spring chamber. Bardsley's 1891 patent, however, shows the partition, or "shelf," as he calls it, so cut away as to permit the liquid to flow from one chamber into the other. The door checks which defendant makes, however, do not conform in this respect to his patent, and the partition between liquid chamber and spring chamber is made liquid tight. That, in all respects save one, the defendant's checks are within the second and third claims of Blount's

1891 patent, is hardly disputed. Upon this single point in dispute the circuit court says:

"The second and third claims merely describe the shaft as connected with the piston, without mentioning how. Question is made in expert opinion and in argument as to whether the shaft is connected with the piston, within the meaning of these claims. The second of them provides for the shaft's being connected to the piston to operate the same; and the third, for its being connected with the piston to operate the same and be operated thereby. This shows that the connection provided for is not an actual attachment that will prevent any separation, but such a relation of parts as will produce simultaneousness of motion between the shaft and the piston."

In our opinion, the defendant's eccentric, cam, or crank is "connected with his" piston having the heads, f and g, within any fair definition of that word. Although not actually attached, without possibility of separation, to either head, f, or head, g, it is thus attached to the elongated piston, considered as a whole, i. e. as a structure having two heads arranged crosswise in the cylinder, which heads are united by rods so as to form a single piece of mechanism. The eccentric cam or crank is inserted within the two-headed piston, and is so mounted that it always remains there. It is never withdrawn out of the two-headed piston, although sometimes it is in contact with one head, and sometimes with the other, just as the crank pin in Blount's 1883 patent is connected with the slotted crosshead, although it moves therein, and is sometimes in contact with one side of the slot, and sometimes with the other.

We find nothing in the evidence as to alleged prior invention by Gilfillan or Bardsley to call for reversal of the decree of the circuit court, which is affirmed, with costs.

WALLACE, Circuit Judge (dissenting). I dissent from the judgment in this case. I am of the opinion that there is no patentable novelty in the aggregation of devices specified in the second claim of the earlier patent to Blount, No. 289,380, or in the second and third claims of his later patent, No. 458,357. It suffices to say of the earlier patent that everything in the combination of the second claim was old in the prior art, except that Blount seems to have been the first to employ in a door check a regulating cylinder with a by-pass. It was for this feature of novelty that the patent office, after rejecting claims during the pendency of his application which embodied all the other parts of the claim, allowed it. Blount selected a by-pass in preference to placing a second valve in the piston,—a perfectly well known substitute in valve mechanism.

The claims of the later patent are for still more attenuated and unimportant changes of organization.

AMERICAN SODA-FOUNTAIN CO. v. GREEN et al.

(Circuit Court, E. D. Pennsylvania. June 11, 1896.)

1. PATENTS—VALIDITY OF COMBINATIONS.
It is an unsafe ground upon which to overturn a patent for a combination that all the elements of the combination may be found partly in one prior structure, and partly in others. Dederick v. Cassell, 9 Fed. 306.