

oner should be brought personally before me with the application for his removal. This may be considered by you as a standing order in the respects above noted.

Sincerely yours,

JNO. S. WOOLSON, U. S. District Judge.

UNITED STATES v. DUDLEY.

(Circuit Court of Appeals, Second Circuit. February 23, 1897.)

**CUSTOMS DUTIES—CLASSIFICATION—DRESSED LUMBER.**

Boards and planks of uniform length, width, and thickness, planed and matched for splines, are not dutiable as "manufactures of wood," under paragraph 181, Act 1894, but are entitled to free entry as "dressed lumber," under paragraph 676. 74 Fed. 548, affirmed.

Appeal from the Circuit Court of the United States for the District of Vermont.

This is an appeal from a decision of the circuit court, district of Vermont, reversing a decision of the board of general appraisers which affirmed a decision of the collector of customs classifying certain importations for duty under the tariff act of August 28, 1894. The articles imported were boards and planks, each piece of a specified length, width, and thickness, planed on one side, and matched or grooved for splines. The collector classified some of the importations under paragraph 181, as "manufactures of wood not specially provided for," and others under section 3, as "articles manufactured in whole or in part, not provided for in this act." The importers claimed that their importations were free from duty, under paragraph 676, as "lumber, dressed."

John H. Senter and Edward B. Whitney, for appellant.

J. P. Tucker and C. A. Prouty, for appellee.

Before LACOMBE and SHIPMAN, Circuit Judges.

PER CURIAM. Inasmuch as the judges who heard this appeal are divided in opinion, the decision of the circuit court is affirmed.

GATES IRON WORKS v. KIMBELL & COBB STONE CO.

(Circuit Court, N. D. Illinois. March 8, 1897.)

**PATENTS—INVENTION—INFRINGEMENT—STONE CRUSHERS.**

The Gates patent, No. 259,681, for an improvement in stone and ore crushers, whereby, instead of the ball and socket bearing of the prior art, there is used a conical crusher-head, fitting into a cylindrical bearing, so that the pressure is along a line of some length, instead of upon a single point, covers a useful and patentable invention, and is infringed by a crusher having a cylindrical crusher-head and a conical bearing to receive the same.

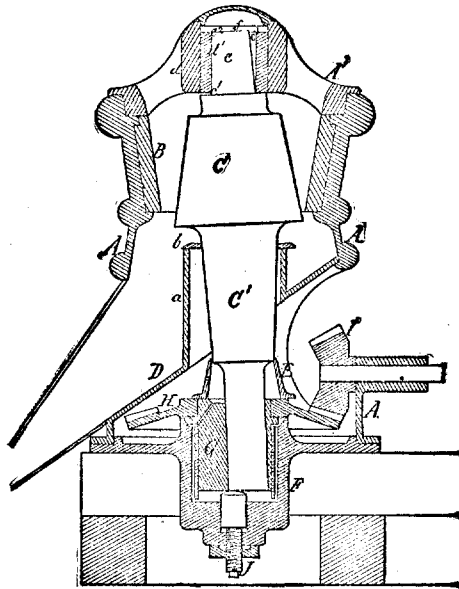
This was a suit in equity by the Gates Iron Works commenced against the Kimball & Cobb Stone Company for alleged infringement of a patent relating to stone crushers. Frazer & Chalmers were afterwards substituted as party defendant.

Abner & Strong, for complainant.

Bond, Adams, Pickard & Jackson, for defendant.

**SHOWALTER**, Circuit Judge. The bill in this case alleges the infringement of a number of patent monopolies. On the final hearing, all issues were abandoned, except upon letters patent 259,681, dated June 20, 1882. That patent concerns journals and journal bearings for stone and ore crushers. The patentee, P. W. Gates, says in his specification:

"My invention relates especially to a shaft having a conical crusher-head between its ends, and which has its lower end connected to a revolving eccentric, which gives the shaft and conical crusher-head a revolving gyrating movement, while its upper end is fitted to move in a stationary journal bearing; and the object of my invention is to secure a continuous straight bearing during the action of the crusher-head from the bottom to the top of the journal bearing along the working surface of the journal of the shaft, while the requisite accommodation for the gyratory movement of the shaft is afforded; and this object I attain by the means hereinafter described, represented in the accompanying drawings, and claimed."



In the machine as shown in Fig. 1 of the patent in suit, the upper end of the shaft spoken of as the journal, *c*, is a truncated cone. The bearing for this journal is a cylinder, the diameter of which is the same as the major axis of the ellipse formed by a plane cutting the cone horizontally, and at the base or lower edge of the cylinder. As the journal rests in its bearing, it touches the base of the cylinder, theoretically, only at the opposite extremities of the said major axis. Thence upward, the place of junction is, theoretically, a line in a plane with the axis of the shaft. In the second form described in the patent, wherein the bearing is conical and the journal a cylinder, the line of junction referred to is exactly parallel with the axis of the shaft. The shaft does not, necessarily, rotate on its longitudinal axis. When the lower end of the shaft is gyrated, the successive

positions of the lowest portion of the journal would be indicated by a series of ovals or ellipses. The manner of progressive contact between the journal and its bearing at the base of the latter is that of a rolling wheel, rather than a sliding runner. The sliding of one surface over another enters gradually into the adjustment to successive positions above the base, since the circumference of the bearing is greater than that of the conical journal at its upper end. But the junction in any position is, theoretically, a line. The strong and direct pressure is along this line. From this line horizontally on either side, the pressure, while it decreases, becomes more and more oblique. But vertically there is no tearing or expanding force on the cylinder, and no force tending to contract or to lessen the longitudinal bearing surface of the journal.

The structure which was in the art, and which that indicated in the patent was intended to supersede, was a ball and socket. In a ball and socket the direct pressure is, theoretically, upon a single point in the socket, and, theoretically, the contact between the ball and the inclosing sphere is not upon a line, but at a point. From this point the pressure decreases in all directions between the curved surfaces, but becomes more and more oblique with respect to the line of direct pressure; that is, a line at right angles to the axis of the shaft. The strain which would tear from each other the particles of the socket or inclosing sphere, and compress the ball into smaller dimensions, is exerted as much vertically as horizontally; and the tendency of the one surface to enlarge and of the other to diminish is aided by the complex sliding or abrading process which necessarily takes place in the operation of the machine. These structures are applied to stone crushers. The pressure, it is stated in the testimony, between the ball and its socket, may, in the operation of such a machine, easily exceed 100,000 pounds to the square inch. The large stones are first caught between the upper portion of the flaring concave, B, in the figure, and the crusher-head, C. The crushing movement of the crusher-head is imparted by the gyration of the lower end of the shaft. This crushing movement is, at the upper portion of the crusher-head, very slight in extent. An abrasion, wear, or enlargement of one-fortieth of an inch in the surface of the socket, and a like amount on the ball, would, as it is testified, reduce the usefulness of a No. 6 machine by one-half.

In theory, the structure of the patent would seem to be—and in fact, as shown by the testimony, it is—in a high degree useful, as giving permanent efficiency to the machine. The conception of the patent was to distribute the pressure, and give it such direction that the bearing surfaces would, during the operation of the machine, retain their consistency and integrity, while holding the upper end of the shaft so that the crushing angle is preserved. The difference in result between the efficiency of the ball and socket machine and that of the patent is one of degree. But the difference in structure, as already described, is a difference in kind,—a difference in the application and play of mechanical forces. The claim in controversy is in words following:

"A gyrating crusher-shaft having the tapering journal, c, in combination with a journal bearing, whereby only a portion of said tapering journal stands parallel and in contact with the vertical surface of said bearing during the gyration of the shaft, substantially as described."

Counsel argue that this combination is unpatentable, because it expresses merely the law of the machine, meaning that if the lower end of the shaft is to gyrate, and the upper end to be a journal, that journal must have a bearing which will permit the gyratory motion. But is not its mode of operation the law of every combination? Prior to this construction, as said, the upper end of the gyrating shaft was a ball, and its bearing was a socket. The new idea in connection with the gyratory crusher shaft was the journal with the long vertical contact or pressure in each and every position against the journal bearing; and this to overcome a specific difficulty with which the conception of journals and journal bearings, as distinguished from balls with socket bearings, had not before been associated. The distribution of the pressure along the vertical line from bottom to top of the journal bearing, said line of contact being exactly parallel in one form, and in another but slightly inclined to the axis of the shaft, is functional in this device, to avoid or retard disintegration of the contacting surfaces. The words "whereby only a portion of said tapering journal stands parallel and in contact with the vertical surface of said bearing during the gyration of the shaft, substantially as described," indicate this function. I do not find the combination of claim 1 in the prior art. Certainly, no use at all analogous is shown; nor is anything shown which would seem to involve the specific function and purpose of the combination, as already explained.

The defendant used the cylindrical journal with the conical journal bearing. The specification of the patent contains the statement:

"The taper which is imparted to the journal of the gyrating crusher-shaft may be imparted to the bearing surface of the journal bearing, while a cylindrical, instead of a tapering, form, may be imparted to the journal. With this change in construction, the operation and result of my invention will be substantially the same as with the special construction described and shown."

While "the tapering journal, c, in combination with a journal bearing," is the language of the claim, yet, obviously, the cylindrical journal, in combination with a tapering journal bearing, would be the same thing. It seems to me, if the claim be valid, the infringement is made out.

Must I dismiss this bill because, in a suit against other defendants pending in the Fifth circuit while this suit has been pending here, this patent was not sustained? The question whether or not a claim is invalid for want of novelty or utility depends on the evidence in the particular case. Counsel concede that the evidence here is not the same as that in the case in the Fifth circuit. I think, upon the showing in this record, a decree should go in favor of complainant.

## EVERETT PIANO CO. et al. v. BENT.

(Circuit Court, N. D. Illinois. February 6, 1897.)

## PATENTS—VALIDITY AND INFRINGEMENT—PIANOS.

The French & Nalence patent, No. 515,426, for a piano attachment, whereby a flexible strip, carrying a metallic striker, is interposed between the hammer and the string, so that the hammer strikes the strip on one side of the striker, for the purpose of modifying the tone by a secondary or double stroke on the string, *held valid, and infringed.*

This was a suit in equity by the Everett Piano Company, La Martine M. French, and Charles Nalence against George P. Bent for alleged infringement of letters patent No. 515,426, issued February 27, 1894, to La Martine M. French and C. Nalence for a piano attachment. On final hearing.

Bond, Adams, Pickard & Jackson, for complainants.  
Coburn & Strong, for defendant.

SHOWALTER, Circuit Judge. Complainants sue for the infringement of the first and third claims of letters patent of the United States numbered 515,426. These claims are in words following:

"(1) In a piano, in combination with the strings, a series of non-resonant, soft, flexible strips having hard strikers or buttons on that face next to the strings, and hammers to act upon the strips to one side of the said buttons."

"(3) In a piano, the combination with the strings of a series of flexible strips having on that face next the strings hard buttons or contacts, and a series of hammers adapted to strike the strips to one side of the said buttons."

The patentees say in their specification:

"Our invention relates to piano attachments for changing the tone of a piano, causing it to resemble a guitar, mandolin, zither, etc. To this end we arrange on the piano a series of strips of flexible material, each having on it a metallic striker. These strips are connected to a bar operated by a pedal, by which they can be moved so that the ordinary hammer of the piano will strike the flexible strip. The strip thus kills the tone which would otherwise be produced by the string, but the metallic striker on the strip striking the string produces the modified tone which we desire. A reverse movement of the pedal withdraws the strips, leaving the hammers free to strike the strings in the ordinary manner and produce the ordinary tone of the piano. \* \* \* The operation of the invention is as follows: A pressure on the pedal moves the bar, 3, and strips, 4, within the action of the hammers, 2, so that the hammers strike the material of the strips above the striker, 5, and press it against the strings, 1. The soft strip kills the effect of the blow of the hammer on the string, but the hard striker, 5, is thrown against the string, and produces a tone."

Several prior devices are shown in the evidence, but in each instance the interposed medium for modifying the vibration of the string, and so changing the tone, is directly between the hammer and the string. In the case of the patent in suit, what is called the "metallic button" in one place in the specification, and the "hard button" in another and in the claims, is not interposed so that the stroke of the hammer is directly against such button. The idea of modifying the tone by a secondary or double stroke on the string, in the manner described in the patent in suit, is not found in the prior art. The novelty of this construction is rather emphasized than otherwise by the prior devices. In the structure complained

of, the leather tongue at its lower extremity is tightly folded and secured around a small metallic cylinder placed transversely. The stroke of the hammer is against the tongue, and above this leather-covered cylinder. The mode of operation and effect are substantially the same as in the patent in suit. I think, therefore, the injunction must go as prayed.

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STIRLING CO. v. ST. LOUIS BREWING ASS'N.

(Circuit Court, E. D. Missouri, E. D. March 4, 1897.)

No. 3,876.

1. PATENTS—PRIOR USE—DIVISIONAL APPLICATIONS.

A claim was erased from the original application by an amendment stating that it was for the purpose of being made the subject of a divisional application. The divisional application was accordingly made, and a patent issued thereon containing claims covering the matter in question. *Held* that, so far as regarded a defense of two years' public use, this claim related back to the first application.

2. SAME—VALIDITY AND INFRINGEMENT—STEAM BOILERS.

The Pell patent, No. 539,189, for an improvement in water-tube steam boilers, whereby the water tubes are made to sustain the weight of the mud drum and its contents, so that their expansion and contraction produces no injurious results, shows a patentable combination as to the second claim, which is infringed by a boiler having three mud drums, one of which is sustained by the tubes.

This was a suit in equity by the Stirling Company against the St. Louis Brewing Association, for alleged infringement of a patent for an improvement in steam boilers.

Banning & Banning and Carr & Carr, for complainant.

W. Bakewell, T. W. Bakewell, and Paul Bakewell, for defendant.

ADAMS, District Judge. This suit is founded on the second claim of letters patent of the United States No. 539,189, issued to Harry S. Pell, May 14, 1895, for an improvement in steam boilers. The application on which the patent was issued was filed June 5, 1894, but the record shows that an application for the same subject-matter, so far as regards the second claim, was filed December 22, 1893. The invention is shown to have gone into public use in the early part of 1892,—“somewhere between January and May of that year.” The first application was rejected January 27, 1894, and again March 31, 1894; and on April 5, 1894, an amendment was filed erasing its first claim, the one covering the subject-matter in controversy. As a reason for erasing such claim, this amendment stated: “The subject-matter of claim 1 is thus taken out of this case, in order that it may be made the subject of another or divisional application.” On May 2, 1894, an interference was declared between the first application and another pending application; and on June 5, 1894, the second application—the one in which the patent sued on was issued—was filed, covering the subject-matter now in controversy and other subject-matter. On these facts I hold that, so far as regards the defense of