

Case No. 3,549. DALTON ET AL. V. NELSON ET AL.

{13 Blatchf. 357;¹ 2 Ban. & A. 225; 9 O. G. 1112; Merw. Pat. Inv. 519.}

District Court, S. D. New York.

May 27, 1876.

PATENTS—INVENTION—NEW RESULT—INFRINGEMENT—STEAM GAUGE COCK.

1. The reissued letters patent granted to Oscar T. Earle, assignee of Albert Bisbee, June 14th, 1870, for a compression steam gauge cock (the original patent having been granted to said Bisbee, September 18th, 1855, and extended for seven years from September 18th, 1869,) are valid.
2. The invention consisted in making one of the surfaces that meet to close the water way or steam passage, of a piece of vulcanized rubber, instead of making it of metal and facing it with cork, or leather, or soft metal, the other surface being made of metal. The substitution of the vulcanized rubber for the prior material produced a new result.
3. The use, for one of the bearing surfaces, of vulcanized rubber intermingled with other materials, the whole forming one compound, is an infringement of the patent.

{This was a suit in equity, brought by Henry L. Dalton and others against Charles Nelson and others, for alleged infringement of a patent.}

Solomon J. Gordon, for plaintiffs.

Thomas W. Clarke, for defendants.

SHIPMAN, District Judge. Letters patent [No. 13,563] for an improved steam gauge cock were issued to Albert Bisbee on September 18th, 1855, were extended for seven years from September 18th, 1869, and were reissued [No. 4,027] on June 14th, 1870, to Oscar T. Earle, assignee of Bisbee. This is a bill in equity, in favor of the owners of the reissued letters patent, to restrain the defendants from an alleged infringement, and for an account. Infringement and the novelty of the invention are denied by the answer.

The alleged invention, which is a compression steam gauge cock, was made by Mr. Bisbee in 1853, and consisted, in the language of the specification, “first, in making one of the surfaces that meet to close the water way or steam passage, of a piece of vulcanized rubber, which is protected from spreading, or confined in metal, in such manner that but little more than its bearing or acting surface is exposed;” and, secondly, in making the other surface, which is of metal, in the form of a ring, “so that the rubber may be compressed by the same power more forcibly than if the metal surface were equal in area to that of the rubber.”

Prior to this invention, the opposing surfaces of steam gauge cocks had been made of brass or other metal, which was speedily roughened or worn by the dirt or grit in the water. To remedy this difficulty, one of the surfaces was sometimes faced with leather or lead, but the steam soon destroyed the leather and corroded or cut away the surface of the lead. The joints leaked, and the cocks soon needed repair, whatever material was employed. The use of vulcanized rubber, as one of the bearing surfaces, overcame these difficulties. Its advantages are briefly explained by one of the defendants’ witnesses to

have been, that, "being a rubber or elastic substance, it would not wear and grind as metal surfaces would; by its elasticity, it pressed upon the seat and easily made a tight joint; it has always answered just as well in hot water as cold; while metal surfaces and ground joints, in stop cocks, will not stand at all in hot water." The Bisbee cock has proved to be of great value. It has superseded the use of pre-existing devices, has met with large sales, and "has answered its purpose perfectly."

The main question in the case is as to the validity of the patent. The defendants have introduced a number of devices which are claimed to have anticipated the plaintiffs' patent. Of these, the valve patented by Albert Fuller was clearly antedated by the Bisbee invention. In neither one of the other prior inventions or prior publications was vulcanized rubber used as one of the surfaces to close the steam passage. This fact raises the question which was considered by counsel to be the principal one in the case, viz.: Is the substitution of vulcanized rubber for cork, leather or soft metal, by which substitution a substantially perfect gauge cock was first produced, the subject-matter of a valid patent?

The difficulty which was to be overcome by the patentee was, to make a steam gauge cock which would not readily leak, and which would resist the action of steam. The result which he attained was the invention of a durable gauge cock, which remained tight under various pressures and different degrees of heat, and which did not get out of repair. This result was accomplished by the discovery of the fact, that highly vulcanized rubber, in consequence of its elasticity, would not be ground and abraded by water containing dirt or grit, and, in consequence of its durability and non-corrodible properties, would successfully endure and withstand the power of steam. In the year 1853, the peculiar adaptability of hard rubber to the varied mechanical purposes to which it has since been applied was much less understood than

it is at the present time. The invention consisted in the practical application of the discovery, by such mechanical means that an efficient gauge cock was produced. An attempt was made to show that this invention had been anticipated by the application of sheets of vulcanized rubber to the edges of the doors or plates of manholes of steam engines, and also upon the delivery valves of engines; but, the analogy between the edge of a gasket upon the plate of a manhole or upon a delivery valve, and one of the opposing surfaces of a compression steam gauge cock, which is necessarily opened and closed at frequently recurring intervals, and which should be so constructed as not to become leaky from the constant use to which it is subjected, is so remote, that a rubber gasket cannot, with propriety, be considered an anticipation of Bisbee's invention. The remark of Coltman, J., in *Walton v. Potter*, 4 Scott's N. R. 91, seems to be applicable to this branch of the case: "It appears to me, that it" (the plaintiff's invention) "is a very useful application and adaptation of a substance, the properties and qualities of which for the purpose had never been known before, and, therefore, that it was properly the subject of a patent."

Again, the Bisbee invention comes within the principle which was enunciated in *Hicks v. Kelsey*, 18 Wall. [85 U. S.] 673. "The use of one material instead of another, in constructing a known machine, is, in most cases, so obviously a matter of mere mechanical judgment, and not of invention, that it cannot be called an invention, unless some new and useful result, an increase of efficiency, or a decided saving in the operation, is clearly attained." Here, the substitution does not merely produce the same result in the same way, but produces a new result, differing from the former one so materially, that it might almost be said that the difference is one of kind and not of degree. The improvement was of such marked character, that the inference is, that the new device must have been the result of inventive thought, experiment and skill, rather than the result of mere mechanical judgment.

The defendants' device is an imitation of the plaintiffs' gauge cock, except that, in lieu of the vulcanized rubber, the defendants use the material which was patented by reissued letters patent issued to Nathaniel Jenkins, August 3d, 1869. The claim of the patent is for "an elastic packing composed of at least four tenths of finely pulverized, refractory, earthy or stony material, intimately mingled with, and held together by, rubber prepared for vulcanizing, and then vulcanized, as and for the purpose described." The defendants have taken the principle or idea of the Bisbee invention, which was the production of a tight steam gauge cock by the use of vulcanized rubber as one of the bearing surfaces, and the same material is used, in the same form and shape in which it appears in the Bisbee invention. It is true, that other materials are intermingled with the vulcanized rubber, forming one compound, but the vulcanized rubber of Bisbee is none the less used because other materials are fused with it. The infringement is manifest.

Let there be a decree for an injunction, and an account.

¹ {Reported by Hon. Samuel Blatchford, District Judge, and here reprinted by permission.}