earth, or its equivalents, hereinafter named. The clay is diluted in water, and then mixed with the porcelain earth or its equivalents. The porcelain earth is ground or reduced to fine powder in any suitable mill, after having been previously baked in any suitable kiln. The proportions are from twenty to forty per cent. of clay to sixty to eighty per cent. of porcelain earth or its equivalents. They may, however, vary, more or less. I wish it, however, to be understood that I do not limit myself to the above-named substances, for the same, or very much the same, result may be attained by using, for instance, silex, magnesia, or its equivalent, instead of porcelain earth.

* * A filtering body produced from the above compound is homogeneous, and fulfils the required conditions for filtering. I do not wish to be understood as laying claim, broadly, to the materials hereinabove mentioned as a filtering compound, but only when they are treated as above specified."

The proof is, I think, quite convincing that defendants use a filtering compound made by combining kaolin clay or porcelain earth and finely-ground silex in about the proportions of 30 to 45 per cent. of kaolin and the balance ground silex. This, I think, is an infringement of the patent, as the patentee expressly says:

"I do not limit myself to the above-named substances, [pipe-clay and porcelain earth,] for the same, or very much the same, result may be attained by using, for instance, silex, magnesia, or its equivalent, instead of porcelain earth."

The utility of this compound for filtering purposes is, I think, abundantly established by the proof, as it now stands, for the purposes of this motion. The infringement being established, as I think it is by the proof, an injunction will be ordered, as prayed.

A bond would be required as a condition of granting this injunction, but for the proof in the record showing that the defendants in this suit have been guilty of bad faith towards the complainants, to such an extent that they are not equitably, as I think, entitled to the protection of the bond from complainants.

CUTCHEON et al. v. HERRICK et al.

(Circuit Court, D. Massachusetts. September 9, 1892.)

No. 2,882.

1. PATENTS FOR INVENTIONS—NOVELTY—PRIOR ART—BEATING-OUT MACHINES.

Letters patent No. 384,893, issued June 19, 1892, to the assignees of James C. Cutcheon, covers, in claim 1, "a machine for beating out the soles of boots and shoes, provided with two jacks, two molds, and means substantially as described, having provision for automatically moving one jack in one direction, while the other is being moved in the opposite direction, whereby the sole of the shoe upon one jack will be under pressure, while the other jack will be in a convenient position for the removal of the shoe therefrom." Held, on a review of the prior state of the art, that the essence of the invention is that it was the first machine in which both the motions of compressing the last and of clearing the last from the die were performed automatically, and the claim is valid.

2. Same—Infringement—Equivalents.

The fact that defendants in their machine use lasts instead of jacks does not prevent infringement, since the two are well-known equivalents.

B. Same—Anticipation—Prior Use.

The third claim of the patent, relating to certain details of construction, seems to have been auticipated by the old style Knox molder, but, in the absence of proof that the Knox machine was used prior to the date of the patent, this claim must be held valid, and infringement declared.

In Equity. Bill by James C. Cutcheon and others against George W. Herrick and others for infringement of patent. Decree for complainants.

Alexander P. Browne and George W. Moulton, for complainants.

Charles A. Taber, for defendants.

The present suit is for the infringement of let-COLT. Circuit Judge. ters patent No. 384,893, issued June 19, 1888, to the complainants, as assignees of James C. Cutcheon. The patent is for an improvement in beating-out machines. These machines are used to give the sole of a shoe the requisite curve or contour. Originally this was done by the cobbler holding the shoe between his knees, and beating the sole with a flat-faced hammer. In the operation of these beating-out machines three motions are necessary,—the motion of pressure, the motion of clearance, and the motion of removal. The first machine of this character was constructed under the Johnson patent of November 26, 1867. This apparatus consisted of a hand-operated screw press, in which the sole of the shoe was forced against a mold or base plate having the proper curvature to give the sole the desired shape. This was followed by the Johnson patent of March 10, 1868. In this device the shoe was supported upon an iron last, mounted upon a bar moving vertically between the guide to and from a fixed mold. The last was connected with a toggle lever, and a foot lever, and the operator, by placing his foot upon the foot lever, forced up the last against the mold. The next Johnson patent is dated July 22, 1873, in which the machine was operated by a power driving shaft, so that when the operator had pressed the treadle down part way the power of the shaft would force the sole against the In his patent of June 30, 1874, the same inventor substitutes a jack for the iron last or shoe carrier. This jack was adapted to carry several sizes of wooden lasts, whereas, in the case of the iron last, a separate last must be provided for each size of shoe. The next improvement of Johnson was patented July 20, 1880. In place of a single pressing mechanism, this machine contains a number of such mechanisms arranged side by side, and for this reason it became known in the The next patent referred to in the record art as a "gang" machine. was granted to Maurice V. Bresnahan, June 10, 1884. This was also a "gang" machine. In this device the motions are horizontal, instead of vertical, as in previous machines. It is unnecessary to enter into the specific improvements embraced in this machine.

The result of this brief review of the prior art shows that, previous to the Cutcheon patent, the operation of clearing the last from the die had never been done automatically. The essence of the Cutcheon invention is that it was the first machine in which both the motions of compressing the last and of clearing the last from the die were performed automatically. The first claim of the action is as follows:

matically. The first claim of the patent is as follows:

"A machine for beating out the soles of boots and shoes, provided with two jacks, two molds, and means, substantially as described, having provision for automatically moving one jack in one direction while the other is being moved in the opposite direction, whereby the sole of the shoe upon one jack will be under pressure, while the other jack will be in a convenient position for the removal of the shoe therefrom."

There is no doubt that the defendants' machine contains all the mechanical elements embraced in the above claim. The fact that the defendants use lasts instead of jacks in their machines is unimportant, because they are well-known equivalents. Upon the question of alleged prior use of the Cutcheon invention several years before the date of the patent, in a single machine constructed mainly in accordance with the Bresnahan patent of June 10, 1884, I am satisfied that this defense has not been made out upon the present record.

The defendants are also charged with infringing the third claim of the patent in suit, which relates to certain details of construction. This claim seems to have been anticipated by the old style Knox molder, but the defendants have not proved the use of the old Knox machine prior to the date of the Cutcheon patent. Upon the evidence, therefore, I must hold that this claim is also infringed. Decree for complainants.

SMITH & DAVIS MANUF'G Co. v. MELLON.

(Circuit Court, E. D. Missouri, E. D. June 1, 1892.)

PATENTS FOR INVENTIONS—PUBLIC USE—BED BOTTOMS.

Letters patent No. 269,242, issued December 19, 1882, to J. G. Smith for an improvement in bed bottoms, are void because bed bottoms having all the material elements of the invention were in public use and on sale for more than two years prior to the application.

In Equity. Bill by the Smith & Davis Manufacturing Company against Mellon for infringement of letters patent No. 269,242, issued December 19, 1882, to John G. Smith for an improvement in bed bottoms. Bill dismissed.

William M. Eccles, for complainant. George H. Knight, for defendant.

THAYER, District Judge, (orally.) In view of the testimony the court is of the opinion that the invention covered by letters patent No. 269,-242 was in public use and on sale for more than two years prior to the date of the application for the patent, and that the patent is for that reason void. Smith Co. v. Sprague, 123 U. S. 249, 8 Sup. Ct. Rep. 122; Egbert v. Lippmann, 104 U. S. 333; Manning v. Glue Co., 108 U. S. 462, 2 Sup. Ct. Rep. 860; Andrews v. Hovey, 123 U. S. 267, 8 Sup. Ct. Rep. 101. It hardly admits of a doubt that complainant made and sold wire bed bottoms which embodied all of the material features or elements of the