

but only as the vapor, rising, mingles with the air at the point of combustion at the tip of the burner. The nature of the invention, as declared in the patent, consists in converting the fluid into vapor or gas below the flame by means of the burner, as described, and the use of one or more jets of the same vapor or gas burnt below the generator and burner, as described; but these jets are not carried down by means of any tube or passage to any point below where they issue, so as to heat the chamber containing the fluid in its lower part, but merely assist the illuminating flame in increasing the heat, conducted to the fluid by the metal of which the burner is made, so as to facilitate the evaporation. The small pipes or tubes described in this patent are for the purpose of conveying the vapor to the place of combustion, and not, as in the complainant's, for conveying the burning jet of gas to a lower part of the chamber containing the fluid for the purpose of heating.

On the whole, I am satisfied that the complainant is entitled to a decree, as prayed for, with the usual reference as to damages.

EMERSON and others v. HOWE.

(Circuit Court, D. Massachusetts. June 29, 1881.)

1. PATENT No. 157,395—SHOE BUCKLE—ANTICIPATION—VALIDITY.

Letters patent No. 157,395, granted December 1, 1874, to Calvin Hersome, for improvement in shoe buckles, *held, not anticipated* by letters patent No. 48,135, granted June 6, 1865, to John E. Smith, and letters patent No. 117,347, granted July 25, 1871, to Samuel C. Talcott; also, *held valid*.

2. SAME—SAME—SAME—INFRINGEMENT.

Complainants' device, consisting of an ordinary buckle in combination with a plate hung on the cross-bar thereof, formed with a prong at each end, which, after being inserted in the leather, are bent down towards each other and hold the buckle in place, *held, not anticipated* by the Smith buckle, in which the permanent connection with the strap is not made by clamping, but by inserting the end of the plate, which is formed with two projections, into a slit, and turning it half around; or the Talcott buckle, having a metal box to receive the free end of the strap, such box being firmly clamped to the strap; and *held infringed* by defendant's buckle, in which the prongs are arranged one behind the other, so that their points do not bend towards each other.

3. PATENT—SMALL ARTICLES—SLIGHT DIFFERENCES—ADAPTATION TO NEEDS OF COMMERCE.

In patents for small articles, slight differences are often important, and if such things are patentable at all, it must always be in virtue of a more useful adaptation to the needs of commerce, by small changes of structure, which in a great machine might be merely alternate modes of reaching a part of a general result.

In Equity.

James E. Maynadier, for complainants.

George E. Terry and Causten Browne, for defendant.

LOWELL, C. J. The complainants are the owners of patent No. 157,395, issued December 1, 1874, to Calvin Hersome, for an improvement in buckles.

"This invention," says the specification, "pertains to the buckle of a boot or shoe; and it consists in the combination with and application to a buckle of ordinary construction of a two-pronged plate, which is hung on the cross-bar of the buckle that carries the buckle-prong, and has its prongs shaped for easy insertion in the leather strap, and for their being bent towards each other, as will hereinafter fully appear."

The buckle is then described with due reference to the drawings. The claim is for—

"The buckle-frame, A, having the central cross-bar, *a*, and the buckle-prong, B, pivoted to said cross-bar, in combination with the plate, C, hinged to said cross-bar, *a*, and having the prongs, *b b*, as and for the object specified."

The drawings and description show a simple and convenient method of clamping a buckle to the fixed part of the strap by a thin plate formed with a prong at each end, which, after being inserted in the leather, are bent down and hold the buckle very firmly in place. The defendant's buckle is like the Hersome buckle, except that the prongs are arranged one behind the other, so that the points do not bend towards each other. I suppose they might be so bent that the prongs would approach each other somewhat.

If the patent is valid, and covers a buckle with its plate, with prongs forming a part of a plate suitable for clamping the buckle, whether bent towards each other or not, the defendant is liable.

The Smith patent, June 6, 1865, No. 48,135, and the Talcott patent, July 25, 1871, No. 117,347, are relied upon by the defendant as anticipations of the Hersome, or as calculated to reduce it to very small dimensions. Buckles made under both these patents have been found useful in the trade. The Smith, or Smith & Griggs, or "Anchor" buckle, as it is called from its shape, has the construction of the Hersome, except that the permanent connection with the standing part of the strap was not made by clamping, but by inserting the end of the plate, which is formed with two projections, into a slit, and turning it half round. This connection is loose and inconvenient. By a slight change in the shape of the projections they might be inserted into two slits and clamped. The actual construction of the Anchor buckle does not suggest such an alteration, and when made the clamp would not be good for much.

The Talcott buckle has a metal box to receive the free end of the strap. It is both useful and ornamental for a carriage curtain, but could not be applied to a shoe. The box is clamped to the fixed part of the strap very much as Hersome's is, but the plate of Hersome differs very decidedly from the box, and Talcott's buckle could not be described in the words of Hersome's patent.

In these patents for small articles slight differences are often important; and, if such things are patentable at all, it must almost always be in virtue of a more useful adaptation to the needs of commerce by small changes of structure, which in a great machine might be merely alternate modes of reaching a part of a general result. The defendant's expert says that the Hersome buckle is not suggested by the description of the Smith or Anchor buckle, and would be likely to be preferred; and the evidence of the plaintiffs proves that it is preferred. The changes made by Hersome, the subject-matter being considered, were patentable improvements upon what was known before; and the defendant makes use of those improvements.

Decree for the complainants.

DODGE, Trustee, v. FEAREY and others.

(Circuit Court, N. D. New York. June, 1881.)

1. INGALLS & BUDDING'S PATENTS—BOOT AND SHOE MACHINE—INFRINGEMENT.

If the correct construction of Ingalls & Budding's patents require that one element of their combination shall consist of a holding mechanism in which a shoe, while being polished, is held more or less rigidly, one who dispenses with such mechanism may or may not effect a practical improvement, but he has done that which distinguishes his machine from the class to which these patents refer, and has not appropriated their inventions.

Wadleigh Fish and Chauncey Smith, for complainant.

J. E. Maynardier, for defendants.

WALLACE, D. J. It will not be expected that this court will disregard the deliberate judgment of Judge Shepley in *Sweetser v. Holmes* upon the precise questions presented now, and place itself in direct antagonism to his conclusions, unless constrained to do so by the clearest convictions that he erred. That judgment is entitled not only to the respect due to a court of co-ordinate authority, but also to the high consideration due to the deliberate conclusions of a judge of large learning and experience in patent causes.

In *Sweetser v. Holmes* Judge Shepley construes the complainant's patents to belong to a class of inventions in which there is a combi-