

other arrangements. A piece of wire, or a fine chain, or a hair, will serve well for a feeder, but a thread of fibrous material is the best." Stewart, No. 253,953, p. 2, line 30; Gard, No. 264,451, p. 1, line 80. The complainant's pen is operated in part by gravity. See page 1, line 61, of the patent in suit. In all cases, both gravity and capillary attraction combine, doubtless in varying proportions, to accomplish the desired result.

In argument, complainant's counsel contended that, both in the patent in suit and in the defendant's pens, the downward flow of ink and the upward flow of air was simultaneous and continuous, while in older pens the flow had alternated. Yet some alternating movement, even in the complainant's pen, seems to be admitted. See Complainant's Record, Fols. 1152 and 1168.

It follows that, even if the complainant's patent be valid when limited to fissures made in the integral walls of the duct or groove (concerning which point no opinion is expressed), yet it is not infringed by the defendant's pen. This decision is reached upon the prior patents in evidence, and the numerous exhibits of earlier pens need not be considered.

Nos. 1223 and 1224 are suits brought for the infringement only of letters patent No. 293,545. The decision of these two cases follows that of No. 951. In all cases the bills are dismissed, with costs.

Bills dismissed, with costs.

---

**L. E. WATERMAN CO. v. JOHNSON.**

**JAMES v. LOCKWOOD.**

(Circuit Court, D. Massachusetts. January 16, 1902.)

Nos. 1221, 1222.

**1. PATENTS—INFRINGEMENT—FOUNTAIN PENS.**

The Waterman patent, No. 604,690, relating to caps for fountain pens, claims 8 and 9, which cover a cap composed of an internal and external conical member, are not infringed by a cap in which the interior of the external member is not conical, but consists of two cylinders, the upper being smaller than the lower. Claims 17 to 26, which cover a conical interior member, and a cap which is elastic, or has an elastic mouth, to make a tight joint, but without specifying any particular material, are void for lack of invention, such joints being old in the art, and in others in which they were used for a similar purpose.

In Equity. Suit for infringement of letters patent No. 604,690, for a fountain pen, granted to Lewis E. Waterman, May 24, 1898. On final hearing.

Walter S. Logan, Fred C. Hanford, and Samuel S. Watson, for complainants.

Oliver R. Mitchell and Charles S. Thurston, for defendants.

LOWELL, District Judge. These are two bills in equity for the infringement of letters patent No. 604,690, concerning the caps of fountain pens. The following claims are in issue in each suit:

(8) "In fountain pens, an ink and union joint and stop consisting in the co-operative and supporting union of external and internal conical members, the external member being also provided at its open end with an elastic, externally beveled annular lip that engages the opposite part of the internal member with elastic pressure, and forms a noncapillary joint and stop with and upon the internal member."

(9) "In fountain pens, a cap having within its open mouth a conical seat or chamber for the conical end of the fountain, also provided at its mouth with an externally beveled elastic annular lip engaging the conical end of the fountain at and near its base."

(17) "A tapered interior member and an exterior member, having at and near its mouth an elastic bearing thereon, and a positive supporting bearing thereon, back of the mouth, forming a union joint, substantially as shown and described."

(18) "A holder of a fountain pen tapered on its forward open end, in combination with a cap which is elastic at and near its mouth, and thereby makes and maintains union joint connection with the holder."

(19) "In fountain pens, a holder provided with a tapered hollow end, and with a cap which is elastic and flexible at and near its mouth."

(20) "In fountain pens, an internal member having a taper surface and bearing, and an external member or cap having an elastic mouth, seat, or chamber, which engages with the internal taper surface, and forms a variable elastic joint."

(21) "In fountain pens, an internal member having a taper surface and bearing, and an external member or cap having an elastic mouth, seat, or chamber, which engages with the internal taper surface, and forms a variable elastic combined joint and stop."

(22) "In fountain pens, an external member or cap having an elastic mouth, seat, or chamber, which engages with a taper surface on an internal member, and forms a variable stop."

(23) "In fountain pens, an external member or cap having an elastic mouth, seat, or chamber, which engages with a taper surface on an internal member, and forms a variable stop and elastic joint."

(24) "In fountain pens, a cap or exterior member, which is elastic at and near its mouth, and forms a variable stop joint on and with a taper surface of an interior member."

(25) "In a fountain pen, a cap and a holder engaged and held together by an elastic progressive wedge union joint."

(26) "In fountain pens, a cap and a holder engaged and held together by an elastic progressive wedge union joint, which also is a stop."

The other claims have been withdrawn from the consideration of the court.

The claims in issue are of two sorts. Claims 8 and 9 contain as an element a cap having an interior conical surface. Whether these claims be valid or not, I do not think they are infringed by the defendant, because the defendant's cap has no interior conical surface. Its interior is cylindrical. True, the defendant's interior surface is composed of two hollow cylinders, the inner cylinder being the smaller and acting as a stop when it is met by the inserted conical surface of the nozzle of the pen. But this fact does not bring it within the complainant's claim. If the interior surface of the defendant's cap were formed of a large number of diminishing hollow cylinders, each of minute length, perhaps this would be the equivalent of a conical surface. But the defendant's two interior cylinders, the smaller one of which has no effect but that of a stop, do not fall within the complainant's claim. The complainant argued that the defendant's cap is conical because it takes a conical shape when pressed upon the nozzle or interior member. If this be assumed, it is also true, though in

less degree, of all caps, not absolutely inelastic, which are pressed upon conical interior members, and so the claim in question is completely anticipated. But a hollow cylinder which becomes conical when forced upon a cone is not a "conical chamber." The whole patent in suit shows that the conicity of the interior surface of the cap in these claims is predicated of the cap when separated from the tapered surface of the nozzle.

Claims 17 to 26 are of a different sort. The elements contained in them are (1) a conical or tapered interior member; (2) an elastic exterior member, or a cap which is elastic or has an elastic mouth. The other elements of the claims are either functional or else irrelevant for the purposes of this case. That it was old in the art to press a cap down upon a cone or tapering surface, in order to make a tight joint, is indisputable. See Hamilton, No. 145,102. There both the cap and nozzle are of different conicity, and the former, as in the patent in suit, is pressed tightly upon the nozzle, so "as to prevent any ink from escaping when the pen is being carried." Copus, British patent, No. 3,936, Figs. 2 and 14, is substantially similar to Hamilton. Cahoon, Nos. 346,088 and 355,000, are for mucilage bottles, and not for fountain pens, but the operative principle is the same. In No. 346,088 there is "a bearing, b, for a cap," and "the cap engages the bearing, b, which latter, together with the stay projection, is of one integral piece with the bottle, and forms a close joint therewith, whereby evaporation of moisture from the sponge is prevented" (page 1, lines 51, 97). The drawings, specifications, and claims of No. 355,000 show a substantially similar device. See, also, Exhibit H, a collapsible rubber drinking cup, and K, an atomizer. In the proceedings in the patent office the conical joints of stovepipes were also referred to. I can see no invention in adapting a similar joint in an atomizer or a mucilage bottle, or even in a stovepipe, to a fountain pen; but, if I am mistaken in this, some of the patents above mentioned are concerned with fountain pens. It is unimportant whether the joint be made at the upper or lower end of the pen. See Exhibit DW.

The material difference, if any there be, between some of the prior patents in evidence, as well as some of the defendant's undisputed exhibits, and the complainant's patent, lies in the elasticity of the cap in the latter. Now, all caps are more or less elastic, as an examination of the multitudinous exhibits would show, if demonstration were needed. No peculiar kind of elasticity and no particular elastic substance is claimed in the patent. Hard rubber is the only substance suggested in the specifications, and hard rubber is the substance commonly employed in making the caps described in the prior patents, and shown in the undisputed exhibits. Probably the complainant in his patent intended a greater degree of elasticity than was usual in caps theretofore used; but the suggestion of a greater degree of elasticity does not constitute invention. The degree of elasticity required in the patent differed so slightly from that found in the old caps that, in the specifications of the patent (p. 5, line 67), it was said:

"A cap, and even a discarded cap of the old type, having the old cylindrical chamber, may be permanently tapered or set as to the chamber in a tapered

form by simply pressing it upon the conical or taper barrel or holder shown with sufficient force to overcome the elastic limit of the material. If it be previously and slightly heated or warmed at and near the mouth, even an old cylindrical chambered cap may be in that way given a permanent taper form of chamber, and it will require the use of a very small amount of force to do so."

The file wrapper shows that elasticity was inserted as an element in order to meet the refusal of the patent office to issue the patent as originally prepared.

Something was said in argument about beveling the lip of the cap. The prior art in evidence shows beveled lips, and, besides, to round the edge of a cap or a cup in order to avoid a sharp edge is prehistoric.

Bills dismissed, with costs.

---

WESTINGHOUSE AIR BRAKE CO. v. CHRISTENSEN ENGINEERING CO.

(Circuit Court, S. D. New York. March 10, 1903.)

1. PATENTS—VALIDITY AND INFRINGEMENT—VALVE FOR AIR BRAKES.

The Boyden patent, No. 481,134, for a valve for automatic air brakes, which admits both train pipe air and auxiliary reservoir air to the brake cylinder in applying for emergency stops, and which is provided with means for restricting the flow of auxiliary reservoir air to the brake cylinder as compared with the flow of the train pipe air thereto, discloses patentable novelty, and is valid. Claims Nos. 2, 4, and 11 also *held* infringed.

In Equity. Suit for infringement of letters patent No. 481,134 for a valve for automatic air brakes, issued to George Albert Boyden, August 16, 1892. On final hearing.

J. Snowden Bell and Frederic H. Betts, for plaintiff.

William A. Jenner and Edmund Wetmore, for defendant.

WHEELER, District Judge. This suit is brought upon patent No. 481,134, dated August 16, 1892, and granted to George Albert Boyden, assignor to the Boyden Brake Co., for a valve for air brakes.

In applying and releasing air brakes as now here understood the engineer can only force air into the train pipe to charge the apparatus and maintain pressure, and release air from the train pipe to remove pressure on that side of a valve, and let it move back and open passages for sending the air under pressure from auxiliary reservoirs to the brake cylinders to apply the brakes. The relief of train pipe pressure at the engine had to reach each car successively, and let air from the auxiliary reservoirs to the brake cylinders, and apply the brakes on each car one after another, till the last car should be reached and its brakes be applied, unless it could be sooner disposed of at each car for releasing it from the next. It would not go to the brake cylinders against the higher necessary pressure of the reservoir air. These successive applications of the brakes of cars were, and are, sufficient for the usual gradual slowing up of trains, and highly useful;