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Exh 1.

ORIGINAL

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION - DETROIT

RLS GROUP, INC.,
a Michigan corporation,

Plaintiff,

v.

HARRINGTON, INC.,
a Pennsylvania corporation,

Defendant.

JUDGE : Hood, Denise Page
DECK : S. Division Civil Deck
DATE : 08/04/2005 @ 12:58:33
CASE NUMBER : 2:05CV73024
CMP RLS GRP V. HARRINGTON INC
(DA) SI

MAGISTRATE JUDGE MONA K. MAJZOUB

COMPLAINT AND JURY DEMAND

Plaintiff, RLS Group, Inc. ("RLS"), through its attorneys, for its Complaint against Defendant Harrington, Inc. ("Harrington") states as follows:

JURISDICTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1, et seq. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

PARTIES

2. RLS Group, Inc. is a Michigan corporation having its principal place of business at 985 Lake Jason Drive, White Lake, Michigan 48386.

3. Harrington, Inc. is a Pennsylvania corporation having a place of business at 2630 West 21st Street, Erie, Pennslyvania 16505.

VENUE

4. On information and belief, Harrington has transacted business in this judicial district by selling, offering to sell, making and/or using hydrant adapters for connecting a fire hose to a fire hydrant in this judicial district that are covered by the patent at issue in this lawsuit or by inducing others to infringe or contributing to the infringement by others or by conducting other business in this judicial district.

5. Venue is proper in this judicial district under 28 U.S.C. §1391 and 28 U.S.C. §1400(b).

COUNT I - PATENT INFRINGEMENT

6. RLS is the owner by assignment of United States Patent No. 6,447,027 B1 entitled "Quick Connect Hydrant Nozzle for Connecting a Fire Hose to a Fire Hydrant" (the '027 patent), which was duly and legally issued by the United States Patent and Trademark Office on September 10, 2002; and RLS has the right to bring this action and recover for past infringement of the '027 patent and to enjoin future infringement thereof. A copy of the '027 patent is attached as Exhibit 1.

7. Harrington has directly infringed, either literally or under the doctrine of equivalents, contributorily infringed and/or induced infringement of the '027 patent by making, using, selling and offering to sell certain products, including a hydrant adapter covered by one or more claims of the '027 patent both within and outside this judicial district without consent or authority and will continue to do so unless enjoined by this Court.

8. RLS has provided actual notice of the '027 patent and Harrington's infringement thereof to Harrington.

9. Upon information and belief, Harrington's direct infringement, contributory infringement and/or inducement of infringement of the '027 patent has been deliberate, intentional and willful, and will continue unless enjoined.

10. RLS has been damaged by the infringing acts of Harrington and will continue to be so damaged unless Harrington is enjoined from such further unlawful acts of infringement by this Court.

PRAYER FOR RELIEF

WHEREFORE, RLS respectfully requests this Court enter Judgment against Harrington as follows:

a. That Harrington has infringed the '027 patent;

b. That Harrington's infringement of the '027 patent has been willful and deliberate;

c. That Harrington, its affiliates, officers, agents, servants, employees, and all persons in active concert or participation with them be temporarily and permanently enjoined from infringing, inducing others to infringe or contributing to the infringement of the '027 patent;

d. Awarding RLS damages adequate to compensate RLS for Harrington's infringement of the '027 patent; and in accordance with 35 U.S.C. § 284 trebling such damages in view of the deliberate and willful nature of the infringement of the '027 patent ;

e. A determination that this case is exceptional under 35 U.S.C. § 285 and awarding RLS its reasonable attorney fees and costs;

f. Awarding RLS pre-judgment and post-judgment interest on all damages; and

g. Such other relief as this Court deems fair and appropriate.

JURY DEMAND

RLS hereby demands a trial by jury of all issues so triable.

Respectfully submitted,

Dated: August 1, 2005

By _____

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Attorneys for RLS Group, Inc.

Exhibit

1

US006447027B1

(12) **United States Patent**
Lilley et al.

(10) **Patent No.: US 6,447,027 B1**
(45) **Date of Patent: Sep. 10, 2002**

(54) **QUICK CONNECT HYDRANT NOZZLE FOR CONNECTING A FIRE HOSE TO A FIRE HYDRANT**

(75) Inventors: **Ted. A. Lilley**, White Lake; **Kevin Danielson**, Union Lake, both of MI (US)

(73) Assignee: **RLS Group**, White Lake, MI (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/659,172**

(22) Filed: **Sep. 11, 2000**

Related U.S. Application Data

(60) Provisional application No. 60/153,177, filed on Sep. 10, 1999.

(51) **Int. Cl.**[7] **F16L 19/00**

(52) **U.S. Cl.** **285/360**; 285/376; 285/401; 285/148.19; 285/148.2

(58) **Field of Search** 285/360, 361, 285/362, 376, 377, 396, 401, 402, 391, 148.19, 148.21, 148.2

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,596,936 A * 8/1971 Dieckmann et al. 285/396
4,402,531 A 9/1983 Kennedy, Jr.
4,602,654 A 7/1986 Stehling et al.
5,072,750 A * 12/1991 Poms et al. 137/296
5,333,915 A * 8/1994 Sparling et al. 285/69
6,102,444 A * 8/2000 Kozey 285/376
6,102,450 A * 8/2000 Harcourt 285/401

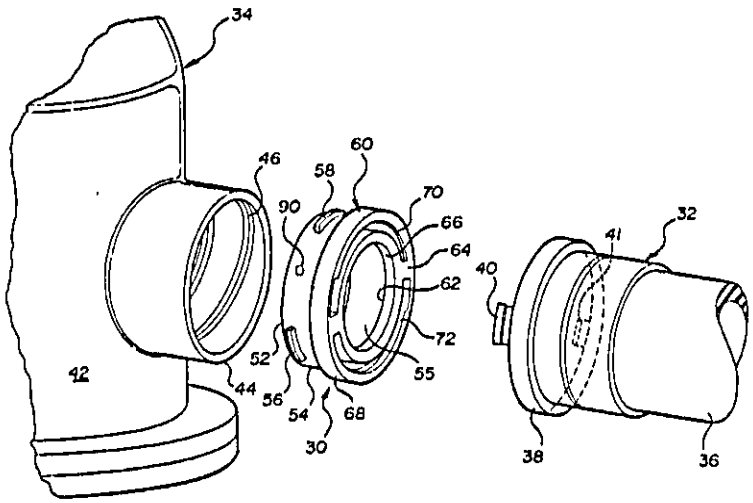
* cited by examiner

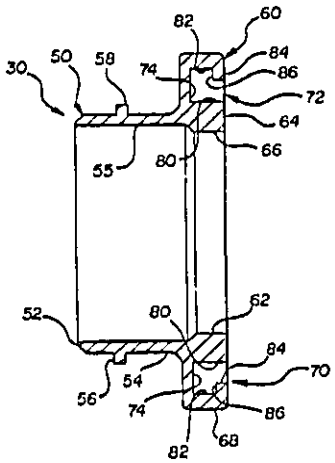
Primary Examiner—Lynne H. Browne
Assistant Examiner—Aaron Dunwoody
(74) *Attorney, Agent, or Firm*—Clark Hill PLC

(57) **ABSTRACT**

A hydrant nozzle for connecting a fire hose to a fire hydrant. The hydrant nozzle comprises a tubular body portion extending longitudinally between a first end and a second end. The body portion has a generally cylindrical outer surface and a generally cylindrical inner surface defining a fluid passageway between the first and second ends. The nozzle further includes a cylindrical neck portion extending from the second end of the body portion to a front face and having an outer peripheral rim and an inner rim defining a center opening in fluid communication with the fluid passageway of the body portion. A pair of spaced apart locking lugs project outwardly from the outer surface and are positioned between the first and second ends of the body portion for removably securing the hydrant nozzle to the fire hydrant. A pair of spaced apart arcuate shaped locking grooves are recessed in the front face of the neck portion between the inner and outer rims for removably securing the hydrant nozzle to the fire hose.

11 Claims, 4 Drawing Sheets





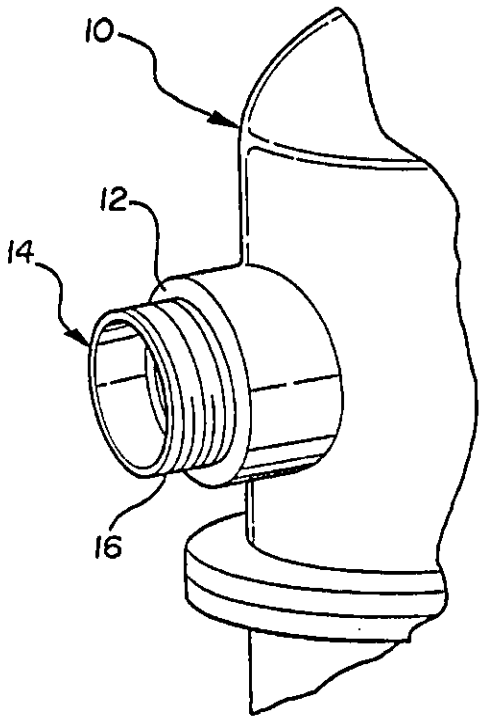


FIG-1
PRIOR ART

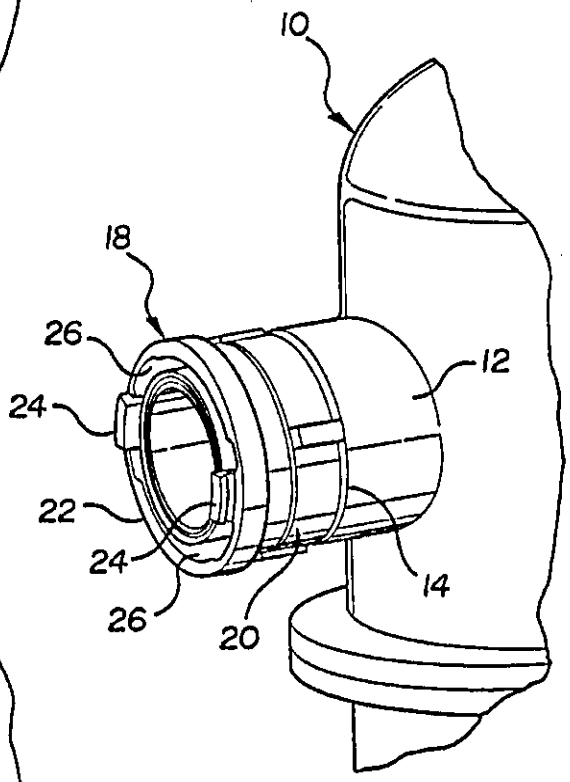


FIG-2
PRIOR ART

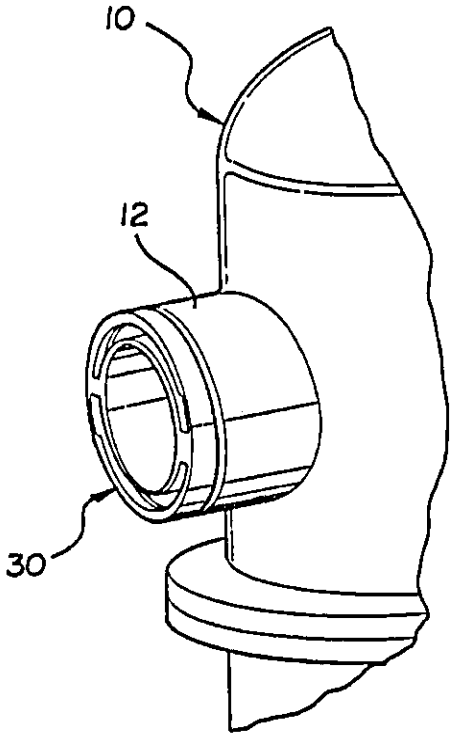
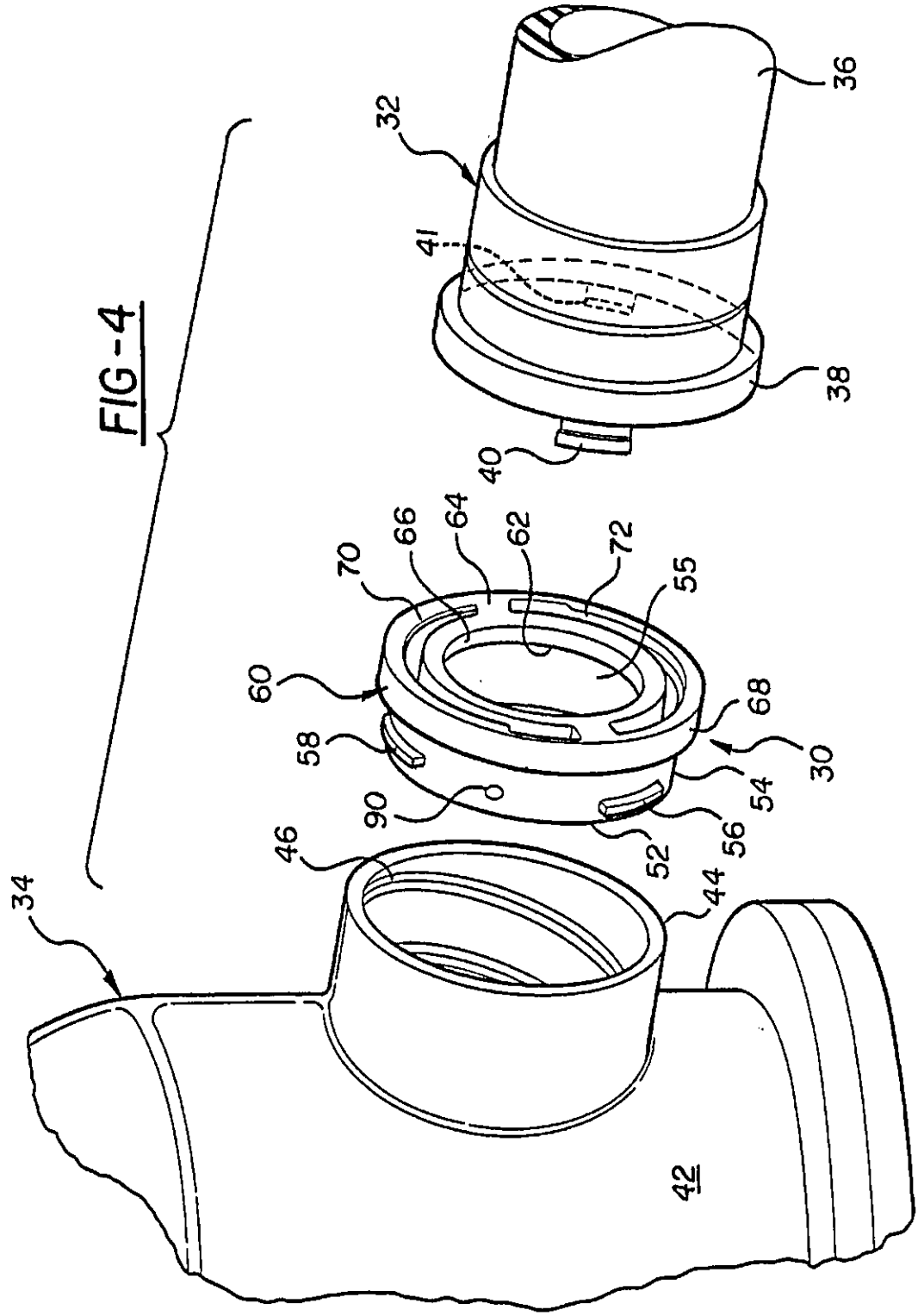


FIG-3

FIG-4



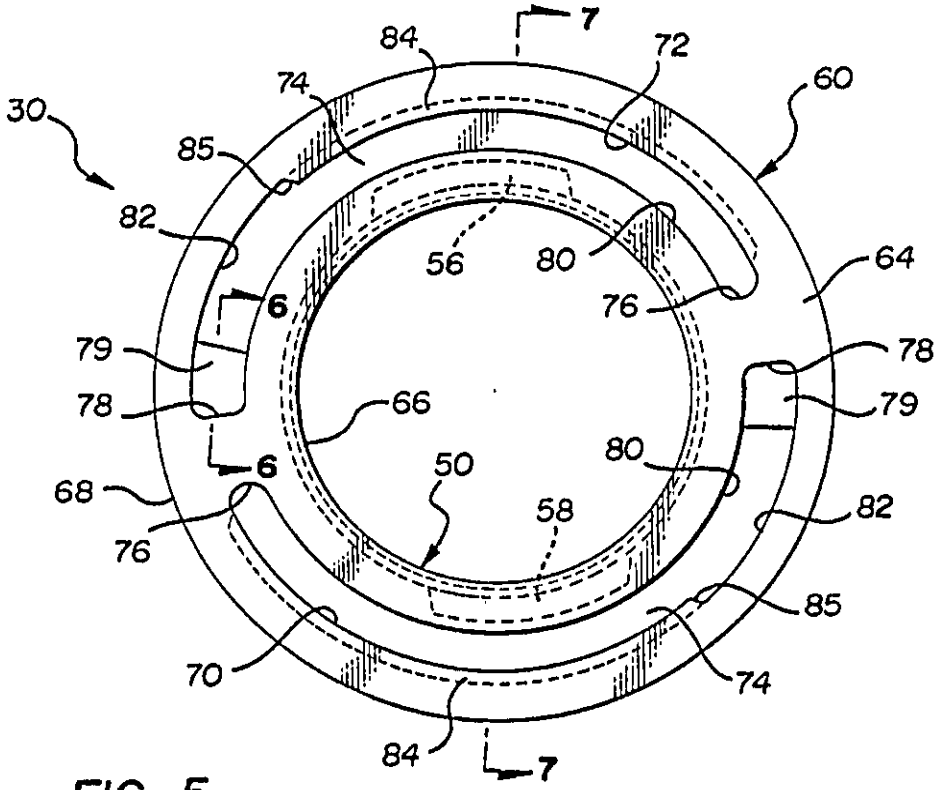


FIG-5

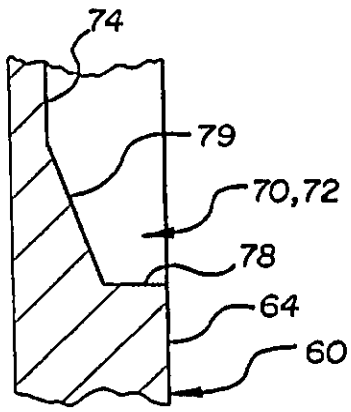


FIG-6

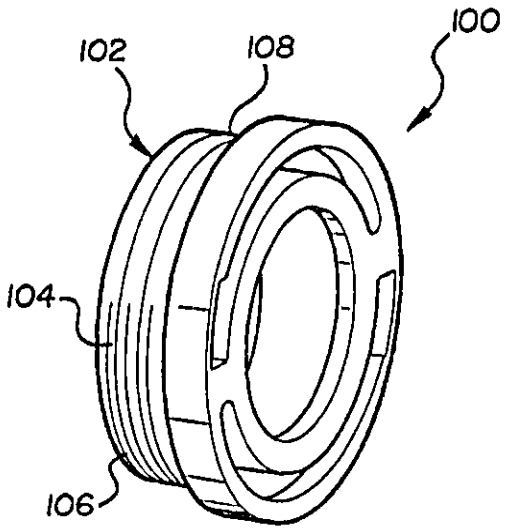


FIG-9

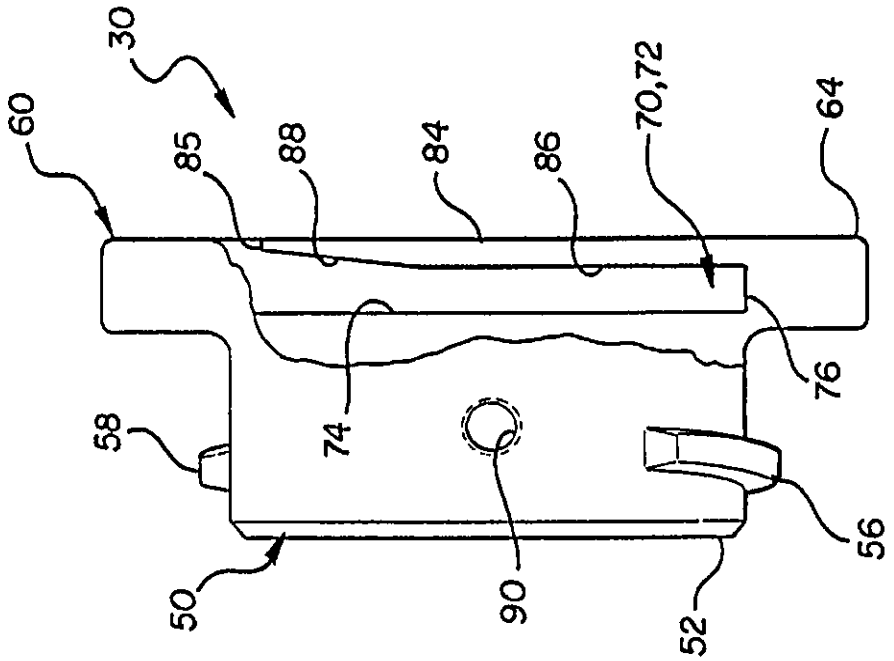

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FIG-8

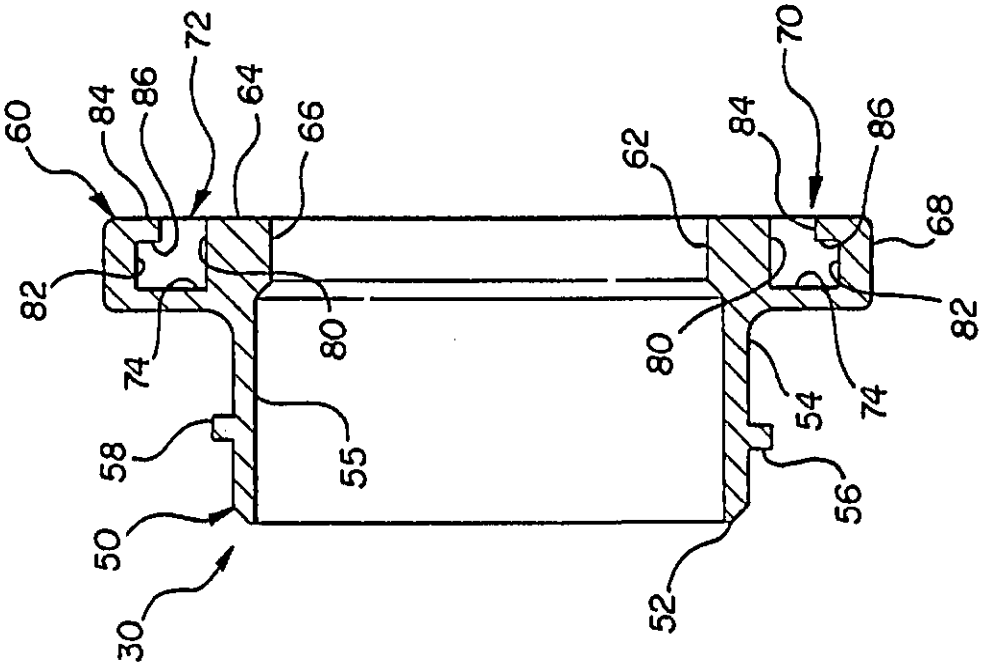
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FIG-7

QUICK CONNECT HYDRANT NOZZLE FOR CONNECTING A FIRE HOSE TO A FIRE HYDRANT

RELATED APPLICATION

This application claims the benefit under 35 USC Section 119(e) of United States provisional application Ser. No. 60/153,177, filed on Sep. 10, 1999.

BACKGROUND OF THE INVENTION

1. Field of Invention

The subject invention relates to a quick connect hydrant nozzle for connecting a fire hose to a fire hydrant.

2. Background of Invention

Generally, fire hoses are connected to a fire hydrant by way of a hydrant nozzle and/or adapter. A fire hydrant typically includes one or more fluid ports, i.e. water outlets, adapted to receive an end of a fire hose and supply pressurized water thereto. The water outlets typically include either an internal threaded portion or a locking groove for receiving the end of the fire hose or a hydrant nozzle. A hydrant nozzle is most frequently connected to the water outlet for connection to the fire hose. A traditional hydrant nozzle typically includes a first end having a pair of locking lugs which mating engage the locking groove of the water outlet to secure the nozzle to the hydrant. The nozzle also traditionally includes a opposite male threaded end which attaches to a mating threaded female end on the fire hose. Of course, attaching the fire hose in this fashion is cumbersome and requires a significant amount of time to thread the fire hose to the fire hydrant.

Other fire hydrants utilize an adaptor or connection system referred to by those of ordinary skill in the art as a Storz coupling. First, a hydrant nozzle is connected to the water outlet of the hydrant. The water port may include internal female threads or recessed locking grooves for receiving the nozzle. The nozzle typically includes a first end having a pair of external locking lugs that cooperate with the locking grooves in the water outlet to hold the nozzle in place upon rotation of the hydrant nozzle. In some cases, the hydrant nozzle may include external male threads which thread directly into the internal female threads of the outlet rather than the aforementioned locking lugs and grooves. The nozzle also includes a second end having external threads projecting outwardly from the water outlet. The Storz coupling includes an adapter having a first end with internal female threads for mating threaded engagement with the second threaded end of the nozzle. The adapter further includes a second end having a pair of locking lugs and locking grooves for receiving and securing the end of the fire hose to the fire hydrant. However, most fire hydrants do not have the adapter, or Storz coupling, attached to them, and therefore, fire departments must carry the adapter with them and then thread it onto the hydrant nozzle for connection with the fire hose. This certainly defeats the effort of a quick connection between a fire hose and fire hydrant in an emergency fire situation.

Therefore, it remains desirable to provide a quick connect hydrant nozzle secured within the port of the fire hydrant for readily receiving and connecting a fire hose to the fire hydrant.

SUMMARY OF THE INVENTION

The present invention includes a hydrant nozzle for connecting a fire hose to a fire hydrant. The hydrant nozzle

comprises a tubular body portion extending longitudinally between a first end and a second end. The body portion has a generally cylindrical outer surface and a generally cylindrical inner surface defining a fluid passageway between the first and second ends. The nozzle further includes a cylindrical neck portion extending from the second end of the body portion to a front face and having an outer peripheral rim and an inner rim defining a center opening in fluid communication with the fluid passageway of the body portion. A pair of spaced apart locking lugs project outwardly from the outer surface and are positioned between the first and second ends of the body portion for removably securing the hydrant nozzle to the fire hydrant. A pair of spaced apart arcuate shaped locking grooves are recessed in the front face of the neck portion for removably securing the hydrant nozzle to the fire hose.

BRIEF DESCRIPTION OF THE DRAWINGS

Other advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIG. 1 a partially broken perspective view of a fire hydrant having a prior art hydrant nozzle secured to a water port of the hydrant;

FIG. 2 is a partially broken perspective view of a fire hydrant having a prior art Storz coupling connected to the hydrant nozzle of the hydrant;

FIG. 3 is a partially broken perspective view of a quick connect hydrant nozzle connected to a fire hydrant according to the preferred embodiment of the subject invention;

FIG. 4 is partially broken exploded view of the hydrant nozzle connecting a fire hose to the fire hydrant according to the preferred embodiment of the invention;

FIG. 5 is a front view of the hydrant nozzle of FIGS. 3 and 4;

FIG. 6 is a cross-sectional view taken along line 6—6 of FIG. 5;

FIG. 7 is a cross-sectional view taken along line 7—7 of FIG. 5;

FIG. 8 is a partially broken away side view of the hydrant nozzle; and

FIG. 9 is a perspective view of an alternative hydrant nozzle according to the subject invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the prior art FIG. 1, a fire hydrant as commonly known to one of ordinary skill in the art is generally shown at 10. The fire hydrant 10 includes a fluid port, or water outlet, 12 for supplying pressurized water to a fire hose (not shown). A traditional prior art hydrant nozzle 14 is shown connected to the water outlet 12. The nozzle 14 includes a distal end projecting from the outlet 12 and having a plurality of external, or male, threads 16. The nozzle 14 is traditionally permanently installed to the hydrant 10 and covered by a threaded cap when not in use. In order to connect a fire hose to the nozzle 14, and thus the hydrant 10, the fire hose must include a female threaded end connector to mating engaging and attach to the threads 16 on the end of the nozzle 14. Alternatively, an adapter must be connected between the nozzle 14 and the end of the fire hose for completely the connection therebetween.

For example, referring to prior art FIG. 2, the hydrant 10 is shown with a Storz type adapter 18 secured to the nozzle

14 for receiving and connecting a fire hose. The Storz adapter 18 includes an internally threaded first end 20 which is threaded onto the externally threaded end of the nozzle 14. The adapter 18 further includes an opposite second end commonly referred to as a Storz coupler 22 for connecting the end of a fire hose to the hydrant 10. The Storz coupler 22 includes a pair of bayonet type locking lugs 24 spaced apart by a pair of recessed locking grooves 26 for cooperating with a Storz type coupler having mating locking lugs and grooves on the end of a traditional fire hose. Therefore, fire fighters having Storz type coupler fire hoses must first attach the adapter 18 to the nozzle 14 in order to connect the fire hose to the hydrant 10.

Referring to FIG. 3, the preferred embodiment of the subject invention is illustrated showing a quick connect hydrant nozzle 30 connected to the water outlet 12 of the hydrant 10. The subject invention hydrant nozzle 30 is connected to the outlet 12 and in essence becomes an integral part of the hydrant 10, making the hydrant 10 compatible with Storz type coupler fire hoses. In otherwords, the prior art hydrant nozzle 14 of FIG. 1 is removed from the hydrant 10 and replaced by the subject invention hydrant nozzle 30. Therefore, the fire hose may be connected directly to the hydrant nozzle 30, without the need for the adaptor 18, thus reducing the connection time between the fire hose and hydrant 10.

More specifically, referring to FIGS. 4–8, the quick connect hydrant nozzle 30 is shown for connecting a fire hose 32 to a fire hydrant 34. The fire hose 32 is of the type commonly known to one of ordinary skill in the art and includes a flexible hose section 36 and a Storz type end coupler 38. The Storz type end coupler 38 includes a pair of bayonet type L-shaped locking lugs 40, 41 projecting from the end of the hose 32 and spaced apart by approximately 180 degrees. The fire hydrant 34 is also of the type commonly known to one of ordinary skill in the art and includes a tubular body section 42 and at least one fluid port, or water outlet 44. The water outlet 44 is generally cylindrical in shape and includes a spiral inner groove 46. The hydrant nozzle 30 is seated between and interconnects the end coupler 38 of the fire hose 32 to the water outlet 44 of the fire hydrant 34. The nozzle 30 is constructed of a one-piece lead-free brass alloy The hydrant nozzle 30 includes a hollow tubular body portion 50 extending along a longitudinal axis defined between a first distal and tapered end 52 adapted to be received in the water outlet 44 and a second end 54 defining a fluid passageway 55 therebetween. The tubular body portion 50 includes a pair of spaced apart locking lugs 56, 58 extending outwardly from the body portion 50 and positioned between the first and second ends 52, 54. More specifically, the locking lugs 56, 58 are generally rectangular blocks positioned transverse to the longitudinal axis of the body portion 50 and arranged at a predetermined angle (spiral or arc-shaped configuration) relative to the ends 52, 54 and corresponding to the angle of the spiral inner groove 46 of the water outlet 44. The lugs 56 are also spaced apart by approximately 180 degrees about the circumference of the body portion 50.

The hydrant nozzle 30 further includes a cylindrical neck portion 60 extending radially outwardly from the second end 54 of the body portion 50 and having a center opening 62 in fluid communication with the fluid passageway 55 of the body portion 50. In the preferred embodiment, the diameter of the neck portion 60 is greater than the diameter of the body portion 50, however, each diameter may vary to accommodate various size water outlets 46 and fire hose couplers 38. The neck portion 60 includes a flat front face 64

extending from an inner rim 66 defining the center opening 62 and an outer rim 68 forming the outermost periphery of the neck portion 60. A pair of spaced apart, elongated and arcuate shaped locking grooves 70, 72 are formed in the front face 64 of the neck portion 60 and are adapted to receive and connect the corresponding locking lugs 40, 42 of the fire hose 32 thereto. Each locking groove 70, 72 extends along an arcuate path between a first end wall 76 and a second opposite end wall 78.

More specifically, referring to FIGS. 5–8, each locking groove 70, 72 includes a bottom surface 74 recessed from the front face 64 and extending between the first and second end walls 76, 78. The bottom surface 74 includes an inclined, or ramped, section 79 adjacent the second ends 78 inclining toward the front face 64 as best shown in FIGS. 5 and 6. Each groove 70, 72 further includes upstanding, parallel and curved inner and outer walls 80, 82 projecting upwardly from the bottom surface 74 to the front face 64 and extending between the first and second end walls 76, 78. The front face 62 further includes a lip, or overhanging shelf, 84 projecting radially inwardly from a portion of the outer wall 82 toward the inner wall 80 forming a top surface 86 of the grooves 70, 72 spaced from and parallel to the bottom surface 74 and defining an L-shaped cross-section as shown in FIG. 7. The lip 84 extends from the first end wall 76 and terminates in an end 85 spaced from the second end wall 78. The top surface 86 formed by the lip 84 includes a inclined, or ramped section 88 extending from the end 85 toward the first end wall 76 as shown in FIG. 8. Finally, the nozzle 30 includes a locking screw 90 threaded into the body portion 50 for locking the nozzle 30 to the hydrant 34 as will be discussed below.

In operation, referring again to FIG. 4, the quick connect hydrant nozzle 30 is arranged such that the distal end 52 of the body section 50 is aligned to be received within the water outlet 44 of the hydrant 34. The nozzle 30 is axially inserted into the opening formed by the water outlet 44 until the locking lugs 56, 58 are received in the inner groove 46. The nozzle 30 is then rotated in the clockwise direction within the outlet 44 until the tapered distal end 52 of the body portion 50 is seated against a seal within the outlet 44 and the neck portion 60 is against or adjacent to the opening of the outlet 44 to create a fluid tight connection between the nozzle 30 and the hydrant 34. The locking screw 90 may then be threaded into the outlet 44 to fixedly secure the nozzle 30 to the hydrant 34. The nozzle 30 is typically permanently installed in the outlet 44 of the fire hydrant 34 as shown in FIG. 3 in replacement of the prior art hydrant nozzle 14.

During use, the fire hose 32 may be directly connected to the fire hydrant 34 via the quick connect hydrant nozzle 30. Specifically, L-shaped locking lugs 40, 41 on the coupler 38 of the fire hose 32 are received in the corresponding locking grooves 70, 72 of the nozzle 30. Each locking lug 40, 41 is inserted into the corresponding groove 70, 72 between the second end wall 78 and the end 85 of the lip 84. The coupler portion 38 may then be rotated in the clockwise direction forcing the locking lugs 40, 41 toward the first end wall 76. The locking lugs 40, 41 each include outwardly projecting lip 43 which engages the inclined section 88 of the top surface 86 formed by the lip 84 and forces the locking lugs 40, 41 into frictional locking engagement with the top surface 86. The coupler 38 typically includes a sealing gasket which engages the front face 64 of the neck portion 60 to create a fluid tight seal between the nozzle 30 and the hose 32. To disconnect the hose 32 from the nozzle 30, and thus, the hydrant 34, the coupler 38 is rotated in the

counterclockwise direction moving the locking lugs **40, 41** toward the second end wall **78** of the locking grooves **70, 72** and past the lip **84**. The inclined section **79** on the bottom surface **74** engages with the locking lugs **40, 41** forcing the coupler end **38** of the hose **32** axially out of the locking grooves **70, 72** and assist in releases the fluid tight seal between the nozzle **30** and the hose **32**.

Referring to FIG. **9**, an alternative embodiment of the hydrant nozzle is shown at **100**. The alternative nozzle **100** varies from the preferred embodiment by including a body portion **102** having a plurality of external threads **104** extending between the distal end **106** and the second end **108**. If the water outlet **44** of the fire hydrant **34** includes internal threads as opposed to the locking groove **46**, the external threads **104** of the nozzle **100** may simply be threaded into engagement with the threads of the outlet **44** to connect the nozzle **100** to the hydrant **34**.

The invention has been described in an illustrative manner, and it is to be understood that the terminology, which has been used, is intended to be in the nature of words of description rather than of limitation.

Many modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims, the invention may be practised other than as specifically described.

What is claimed is:

1. A hydrant nozzle for connecting a fire hose to a fire hydrant, said hydrant nozzle comprising:

a tubular body portion extending longitudinally between a first end and a second end, said body portion having a generally cylindrical outer surface and a generally cylindrical inner surface defining a fluid passageway between said first and second ends;

a cylindrical neck portion extending from said second end of the body portion to a front face and having an outer peripheral rim and an inner rim defining a center opening in fluid communication with said fluid passageway of said body portion;

a pair of spaced apart locking lugs projecting outwardly from said outer surface and positioned between said first and second ends of said body portion for removably securing said hydrant nozzle to the fire hydrant; and

a pair of spaced apart arcuate shaped locking grooves recessed in said front face of said neck portion for removably securing said hydrant nozzle to the fire hose, said locking grooves defined by a bottom surface recessed from said front face of said neck portion and extending between spaced apart first and second end walls defining said grooves and upstanding, parallel and curved inner and outer walls projecting upwardly from said bottom surface to said front face and extending between said first and second end walls.

2. A hydrant nozzle as set forth in claim **1**, wherein each of said locking grooves are further defined by a ramped section adjacent said second end wall and inclining from said bottom surface towards said front face for releasing the fire hose from engagement with said hydrant nozzle.

3. A hydrant nozzle as set forth in claim **2**, wherein each of said locking grooves are further defined by including a lip projecting radially inwardly from a portion of said outer wall toward said inner wall and extending from said first end wall to a distal end and forming a top surface of said groove spaced from and parallel to said bottom surface and defining an L-shaped cross-section.

4. A hydrant nozzle as set forth in claim **3**, wherein said top surface of said lip includes an inclined section extending from said end toward said first end wall for receiving and guiding the fire hose into engagement with said hydrant nozzle.

5. A hydrant nozzle for connecting a fire hose to a fire hydrant, said hydrant nozzle comprising:

a tubular body portion extending along a longitudinal axis between a first end and a second end, said body portion having a generally cylindrical outer surface and a generally cylindrical inner surface defining a fluid passageway between said first and second ends, said body portion adapted to be received and removably secured to the fire hydrant;

a cylindrical neck portion extending radially from said body portion between said second end to a front face and having an outer peripheral rim and an inner rim defining a center opening in fluid communication with said fluid passageway of said body portion; and

a pair of spaced apart arcuate shaped locking grooves recessed in said front face of said neck portion for removably securing said hydrant nozzle to the fire hose, said locking grooves defined by a bottom surface recessed from said front face of said neck portion and extending between spaced apart first and second end walls defining said grooves and upstanding, parallel and curved inner and outer walls projecting upwardly from said bottom surface to said front face and extending between said first and second end walls.

6. A hydrant nozzle as set forth in claim **5**, wherein each of said locking grooves are further defined by a ramped section adjacent said second end wall and inclining from said bottom surface towards said front face for releasing the fire hose from engagement with said hydrant nozzle.

7. A hydrant nozzle as set forth in claim **6**, wherein each of said locking grooves as further defined by including a lip projecting radially inwardly from a portion of said outer wall toward said inner wall and extending from said first end wall to a distal end and forming a top surface of said groove spaced from and parallel to said bottom surface and defining an L-shaped cross-section.

8. A hydrant nozzle as set forth in claim **7**, wherein said top surface of said lip includes an inclined section extending from said end toward said first end wall for receiving and guiding the fire hose into engagement with said hydrant nozzle.

9. A hydrant nozzle as set forth in claim **8**, further including a plurality of threads disposed on said outer surface of said body portion between said first and second ends for removably securing said hydrant nozzle to the fire hydrant.

10. A hydrant nozzle as set forth in claim **8**, further including a pair of spaced apart locking lugs projecting outwardly from said outer surface of said body portion and positioned between said first and second ends for removably securing said hydrant nozzle to the fire hydrant.

11. A hydrant nozzle as set forth in claim wherein said locking lugs extend along an arcuate path generally transverse to said longitudinal axis of said body portion.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 6,447,027 B1
DATED : September 10, 2002
INVENTOR(S) : Lilley et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 1,
Line 26, delete "mating" and insert -- matingly -- therefor;
Line 28, delete "a" and insert -- an -- therefor;

Column 2,
Line 24, insert -- is -- after "FIG. 1";
Line 34, insert -- a -- after "FIG. 4 is";
Line 62, delete "mating engaging" and insert -- matingly engage -- therefor;
Line 65, delete "completely" and insert -- completing -- therefor;

Column 3,
Line 21, delete "otherwords" and insert -- other words -- therefor;
Line 43, delete "alloy" and insert -- alloy. -- therefor;

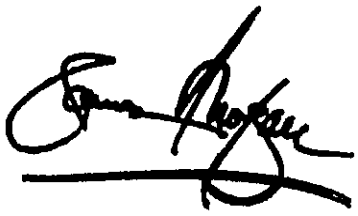
Column 4,
Line 27, delete "a" and insert -- an -- therefor;
Line 59, insert -- an -- after "include";

Column 5,
Line 6, delete "assist in releases" and insert -- assists in releasing -- therefor; and

Column 6,
Line 60, insert -- 10 -- after "claim".

Signed and Sealed this

Third Day of June, 2003



JAMES E. ROGAN
Director of the United States Patent and Trademark Office

11/04)

CIVIL COVER SHEET

Oakland

ORIGINAL

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS
RLS GROUP, INC

DEFENDANTS
HARRINGTON, I

05 - 73024

(b) County of Residence of First Listed Plaintiff Oakland
(EXCEPT IN U.S. PLAINTIFF CASES)

County of Residence of First Listed Defendant
(IN U.S. PLAINTIFF CASES ONLY)
NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE

DENISE PAGE HOOD

(c) Attorney's (Firm Name, Address, and Telephone Number)
Joseph G. Burgess (P41621), Burgess Law Office, PLLC, 691 N. Squirrel Rd, Suite 118, Auburn Hills, MI 48326 248-364-0200

Attorneys (If Known)

MAGISTRATE JUDGE MONA K. MAJZOUB

DPH/73024/MKM

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)
(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☐ 4
Citizen of Another State	☐ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT
- ☐ 110 Insurance
- ☐ 120 Marine
- ☐ 130 Miller Act
- ☐ 140 Negotiable Instrument
- ☐ 150 Recovery of Overpayment & Enforcement of Judgment
- ☐ 151 Medicare Act
- ☐ 152 Recovery of Defaulted Student Loans (Excl. Veterans)
- ☐ 153 Recovery of Overpayment of Veteran's Benefits
- ☐ 160 Stockholders' Suits
- ☐ 190 Other Contract
- ☐ 195 Contract Product Liability
- ☐ 196 Franchise

REAL PROPERTY
- ☐ 210 Land Condemnation
- ☐ 220 Foreclosure
- ☐ 230 Rent Lease & Ejectment
- ☐ 240 Torts to Land
- ☐ 245 Tort Product Liability
- ☐ 290 All Other Real Property

TORTS

PERSONAL INJURY
- ☐ 310 Airplane
- ☐ 315 Airplane Product Liability
- ☐ 320 Assault, Libel & Slander
- ☐ 330 Federal Employers' Liability
- ☐ 340 Marine
- ☐ 345 Marine Product Liability
- ☐ 350 Motor Vehicle
- ☐ 355 Motor Vehicle Product Liability
- ☐ 360 Other Personal Injury

PERSONAL INJURY
- ☐ 362 Personal Injury - Med. Malpractice
- ☐ 365 Personal Injury - Product Liability
- ☐ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ☐ 370 Other Fraud
- ☐ 371 Truth in Lending
- ☐ 380 Other Personal Property Damage
- ☐ 385 Property Damage Product Liability

CIVIL RIGHTS
- ☐ 441 Voting
- ☐ 442 Employment
- ☐ 443 Housing/ Accommodations
- ☐ 444 Welfare
- ☐ 445 Amer. w/Disabilities - Employment
- ☐ 446 Amer. w/Disabilities - Other
- ☐ 440 Other Civil Rights

PRISONER PETITIONS
- ☐ 510 Motions to Vacate Sentence

Habeas Corpus:
- ☐ 530 General
- ☐ 535 Death Penalty
- ☐ 540 Mandamus & Other
- ☐ 550 Civil Rights
- ☐ 555 Prison Condition

FORFEITURE/PENALTY
- ☐ 610 Agriculture
- ☐ 620 Other Food & Drug
- ☐ 625 Drug Related Seizure of Property 21 USC 881
- ☐ 630 Liquor Laws
- ☐ 640 R.R. & Truck
- ☐ 650 Airline Regs.
- ☐ 660 Occupational Safety/Health
- ☐ 690 Other

LABOR
- ☐ 710 Fair Labor Standards Act
- ☐ 720 Labor/Mgmt. Relations
- ☐ 730 Labor/Mgmt.Reporting & Disclosure Act
- ☐ 740 Railway Labor Act
- ☐ 790 Other Labor Litigation
- ☐ 791 Empl. Ret. Inc. Security Act

BANKRUPTCY
- ☐ 422 Appeal 28 USC 158
- ☐ 423 Withdrawal 28 USC 157

PROPERTY RIGHTS
- ☐ 820 Copyrights
- ☒ 830 Patent
- ☐ 840 Trademark

SOCIAL SECURITY
- ☐ 861 HIA (1395ff)
- ☐ 862 Black Lung (923)
- ☐ 863 DIWC/DIWW (405(g))
- ☐ 864 SSID Title XVI
- ☐ 865 RSI (405(g))

FEDERAL TAX SUITS
- ☐ 870 Taxes (U.S. Plaintiff or Defendant)
- ☐ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ☐ 400 State Reapportionment
- ☐ 410 Antitrust
- ☐ 430 Banks and Banking
- ☐ 450 Commerce
- ☐ 460 Deportation
- ☐ 470 Racketeer Influenced and Corrupt Organizations
- ☐ 480 Consumer Credit
- ☐ 490 Cable/Sat TV
- ☐ 810 Selective Service
- ☐ 850 Securities/Commodities/ Exchange
- ☐ 875 Customer Challenge 12 USC 3410
- ☐ 890 Other Statutory Actions
- ☐ 891 Agricultural Acts
- ☐ 892 Economic Stabilization Act
- ☐ 893 Environmental Matters
- ☐ 894 Energy Allocation Act
- ☐ 895 Freedom of Information Act
- ☐ 900Appeal of Fee Determination Under Equal Access to Justice
- ☐ 950 Constitutionality of State Statutes

V. ORIGIN (Place an "X" in One Box Only)

☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from another district (specify) ☐ 6 Multidistrict Litigation ☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION
Cite the U.S. Civil Statute under which you are filing (**Do not cite jurisdictional statutes unless diversity**):
35 U.S.C. Sections 1338(a) and 1331
Brief description of cause:
Patent Infringement Action

VII. REQUESTED IN COMPLAINT:
☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23
DEMAND $
CHECK YES only if demanded in complaint:
JURY DEMAND: ☒ Yes ☐ No

VIII. RELATED CASE(S) IF ANY (See instructions): JUDGE DOCKET NUMBER

DATE
August 4, 2005

SIGNATURE OF ATTORNEY OF RECORD
Joseph G Burgess P41621

FOR OFFICE USE ONLY

RECEIPT # AMOUNT APPLYING IFP JUDGE MAG. JUDGE

Clear Form

URSUANT TO LOCAL RULE 83.11

ORIGINAL

1. Is this a case that has been previously dismissed? ☐ Yes ☒ No

If yes, give the following information:

Court: _____

Case No.: _____

Judge: _____

2. Other than stated above, are there any pending or previously discontinued or dismissed companion cases in this or any other court, including state court? (Companion cases are matters in which it appears substantially similar evidence will be offered or the same or related parties are present and the cases arise out of the same transaction or occurrence.) ☐ Yes ☒ No

If yes, give the following information:

Court: _____

Case No.: _____

Judge: _____

Notes :