UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

LMK ENTERPRISES, INC., Plaintiffs, v. LIQUI-FORCE SERVICES, and LIQUI-FORCE SERVICES USA, INC. Defendants.	**06CV3970** **JUDGE CONLON** **MAG. JUDGE ASHMAN** JURY TRIAL DEMAND

COMPLAINT

COMES NOW the Plaintiff, LMK Enterprises, Inc. ("LMK"), and for its complaint against the Defendants, Liqui-Force Services ("Liqui-Force (Canada)") and Liqui-Force Services USA, Inc. ("Liqui-Force (USA)"), states and alleges as follows:

THE PARTIES

1. Plaintiff LMK is a corporation organized and existing under the laws of the state of Illinois with its principal place of business at 1779 Chessie Lane, Ottawa, Illinois 61350.

2. Upon information and belief, Liqui-Force (Canada) is a Canadian company having its principal place of business at 2015 Sprinks Drive, RR2 Kingsville, Ontario N9Y 2E5.

3. Upon information and belief, Liqui-Force (USA) is a corporation organized and existing under the laws of the state of Michigan, having offices at 28529 Goddard Road, Ste. 106, Romulus, Michigan 48174.

VENUE AND JURISDICTION

4. Jurisdiction of this Court arises under 28 U.S.C. § 1331 and § 1338(a) and 35 U.S.C. § 1, *et seq.*, there being a federal question at issue. This Court also has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. § 1332, since this action is between citizens of different states and the value of this matter exceeds $75,000, exclusive of interest and costs. This Court also has supplemental jurisdiction of the state and common law claims under 28 U.S.C. § 1367.

5. Defendant Liqui-Force (Canada) has consented to the jurisdiction of the Illinois courts for resolving disputes in this case, pursuant to a forum selection clause contained in a license agreement effective November 27, 1998 (copy attached as Exhibit 1).

6. Defendant Liqui-Force (USA) has consented to the jurisdiction of the Illinois courts for resolving disputes in this case, pursuant to a forum selection clause contained in a license agreement effective March 9, 1998 (copy attached as Exhibit 2).

7. Further, Defendants have intentionally directed their actions to this district by undertaking the conduct alleged below, when Defendants knew or should have known that the brunt of injury would be suffered in this district.

8. Venue is proper under 28 U.S.C. § 1391, as acts or omissions giving rise to the present case or controversy occurred, at least in part, within this state and district. Defendants also consented to having all disputes in this case resolved by Illinois courts, pursuant to the aforementioned forum selection clauses.

COUNT I: PATENT INFRINGEMENT – U.S. PATENT NO. 6,039,079
(As to All Defendants)

9. Plaintiff LMK incorporates by reference the allegations of paragraphs 1-8 above.

10. On March 21, 2000, United States Letters Patent 6,039,079, entitled "Apparatus and Method for Repairing the Junction of a Sewer Main Line and Lateral Pipe" was duly and legally issued in the name of Larry W. Kiest, Jr., and the entire right, title and interest in and to said patent has been assigned to Plaintiff LMK, as reflected by the information appearing on the face of the patent. A copy of the aforesaid patent is attached hereto as Exhibit 3.

11. Upon information and belief, Defendants Liqui-Force (Canada) and Liqui-Force (USA) have infringed certain claims of United States Patent No. 6,039,079, and threaten to continue their infringement by performing the methods claimed in the patent without authority to do so, all in violation of 35 U.S.C. § 271. Plaintiff LMK has been damaged by Defendants' infringement of United States Patent No. 6,039,079 and will continue to be damaged in the future unless Defendants are permanently enjoined from infringing, either directly or indirectly, said patent.

12 Upon information and belief, Defendants have both constructive and actual notice of Plaintiff LMK's patent and in particular that said patent was duly and legally issued and Defendants are aware or should be aware that their activities directly infringe United States Patent No. 6,039,079.

13. Upon information and belief, Defendants' infringement of United States Patent No. 6,039,079 is now and has been intentional, willful, and deliberate.

COUNT II: BREACH OF CONTRACT
(MARCH 9, 1998 LICENSE AGREEMENT)
(As to Defendant Liqui-Force (USA))

14. Plaintiff LMK incorporates by reference the allegations of paragraphs 1-13 above.

15. On March 9, 1998, Plaintiff LMK and Defendant Liqui-Force (USA) entered into a License Agreement (Exhibit 2).

16. Plaintiff LMK performed fully under the License Agreement.

17. Defendant Liqui-Force (USA) has breached the express terms of the March 9, 1998, License Agreement by using the licensed products and services without making royalty payments to LMK.

18. Defendant Liqui-Force (USA) has further breached the License Agreement by refusing to convey ownership to LMK of improvements to the licensed products and services, including but not limited to any rights and inventions in U.S. Patents 6,484,757; 6,695,013; 6,827,526.

19. Defendant Liqui-Force (USA) has further breached the License Agreement by using the Licensed Products and Licensed Services outside of the Licensed Territory.

20. Plaintiff LMK has demanded from Defendant Liqui-Force (USA) royalty payments for unauthorized use of the licensed products and services.

21. Plaintiff LMK has demanded from Defendant Liqui-Force (USA) that it conveys ownership to LMK of all inventions for improvements to the licensed products and services.

22. Plaintiff LMK has demanded from Defendant Liqui-Force (USA) that it cease using the Licensed Products and Licensed Services outside of the Licensed Territory.

23. Despite the repeated demands of Plaintiff LMK, Defendant Liqui-Force (USA) still refused to pay the royalties, convey to LMK ownership of all inventions for improvements to the licensed products and services and cease using the Licensed Products and Licensed Services outside the Licensed Territory.

24. The License Agreement includes a covenant by Liqui-Force (USA) to not provide or offer to provide to customers any goods or services which are competitive with the licensed produced and services as defined by the License Agreement for a period of two years after termination of this Agreement.

25. The License Agreement was expressly terminated by LMK on June 15, 2005.

26. Defendant Liqui-Force (USA) has continued to provide and offer to provide customers goods and services competitive with the licensed produces and services as defined by the License Agreement.

27. Defendant Liqui-Force's (USA) actions are in violation of the covenant not to compete contained the License Agreement.

28. If Defendant Liqui-Force (USA) is permitted to continue violating this Agreement by providing and offering to provide customers goods and services competitive with the licensed products and services, as defined by the License Agreement, LMK's relationship with its customers will be disrupted and LMK will suffer substantial and irreparable injury to its goodwill and business for which it has no adequate remedy at law.

29. As a result of Defendant Liqui-Force's (USA) breaches of contract, LMK has suffered damages, in an amount not yet ascertained.

COUNT III: BREACH OF CONTRACT
(NOVEMBER 27, 1998 LICENSE AGREEMENT)
(As to Defendant Liqui-Force (Canada)

30. Plaintiff LMK incorporates by reference the allegations of paragraphs 1-29 above.

31. On November 27, 1998, Plaintiff LMK and Defendant Liqui-Force (Canada) entered into a License Agreement (Exhibit 1).

32. Plaintiff LMK performed fully under the License Agreement.

33. Defendant Liqui-Force (Canada) has breached the express terms of the November 27, 1998, License Agreement by using the licensed products and services without making royalty payments to LMK.

34. Defendant Liqui-Force (Canada) has further breached the License Agreement by refusing to convey ownership to LMK of improvements to the licensed products and services, including but not limited to any rights in U.S. Patents 6,484,757; 6,695,013; 6,827,526.

35. Defendant Liqui-Force (Canada) has further breached the License Agreement by using the Licensed Products and Licensed Services outside of the Licensed Territory.

36. Plaintiff LMK has demanded from Defendant Liqui-Force (Canada) royalty payments for unauthorized use of the licensed products and services.

37. Plaintiff LMK has demanded from Defendant Liqui-Force (Canada) that it conveys ownership to LMK of all inventions for improvements to the licensed products and services.

38. Plaintiff LMK has demanded from Defendant Liqui-Force (Canada) that it cease using the Licensed Products and Licensed Services outside of the Licensed Territory.

39. Despite the repeated demands of Plaintiff LMK, Defendant Liqui-Force (Canada) still refused to pay the royalties, convey to LMK ownership of all inventions for improvements to the licensed products and services, including ownership of said patents and cease using the Licensed Products and Licensed Services outside the Licensed Territory.

40. The License Agreement includes a covenant by Liqui-Force (Canada) to not provide or offer to provide to customers any goods or services which are competitive with the licensed produced and services as defined by the License Agreement for a period of two years after termination of this Agreement.

41. The License Agreement was expressly terminated by LMK on June 15, 2005.

42. Defendant Liqui-Force (Canada) has continued to provide and offer to provide customers goods and services competitive with the licensed produces and services as defined by the License Agreement.

43. Defendant Liqui-Force's (Canada) actions are in violation of the covenant not to compete contained in the License Agreement.

44. If Defendant Liqui-Force (Canada) is permitted to continue violating this Agreement by providing and offering to provide customers goods and services competitive with the licensed products and services, as defined by the License Agreement, LMK's relationship with its customers will be disrupted and LMK will suffer substantial and irreparable injury to its goodwill and business for which it has no adequate remedy at law.

45. As a result of Defendant Liqui-Force's (Canada) breaches of contract, LMK has suffered damages, in an amount not yet ascertained.

COUNT IV: TO QUIET TITLE TO INTELLECTUAL PROPERTY
(As to All Defendants)

46. Plaintiff LMK incorporates by reference the allegations of paragraphs 1-45 above.

47. Plaintiff LMK owns and is entitled to possess property relating to inventions, whether patentable or otherwise, for the improvements to the products and services licensed to Defendants Liqui-Force (USA) and Liqui-Force (Canada).

48. Defendants claim an interest in such property adverse to Plaintiff LMK, including but not limited to U.S. Patents 6,484,757; 6,695,013; and 6,827,526

49. Defendants' claims are without any right, and Defendants have no estate, right, title, lien or interest in the described property or any part of it.

50. Plaintiff LMK lacks an adequate remedy at law for settling title to the subject property.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff LMK prays on its causes of actions as follows:

a. A judgment against Defendants as to all counts in the Complaint;

b. A judgment that Defendant Liqui-Force (USA) has infringed United States Patent No. 6,039,079;

c. A judgment that Defendant Liqui-Force (Canada) has infringed United States Patent No. 6,039,079;

d. An injunction enjoining and restraining Defendants, their officers, directors, agents, servants, employees, attorneys and all others acting under or through them, directly or indirectly, from infringing United States Patent No. 6,039,079;

e. A judgment that Defendants' infringement of United States Patent No. 6,039,079 has been willful and deliberate;

f. A judgment requiring Defendants to pay damages under 35 U.S.C. § 284 for the infringement, including treble damages due to the knowing, willful and wanton nature of Defendants' conduct;

g. A judgment and order directing Defendants to pay the costs of this action, including all disbursements and attorneys' fees as provided by 35 U.S.C. § 285;

h. An order of prejudgment interest from the date of first patent infringement to entry of judgment;

i. Judgment that Plaintiff be awarded all damages for Defendants' breach of contract to which Plaintiff is legally entitled, in an amount to be determined at trial, adequate to compensate Plaintiff for Defendants' breach of contract;

j. An injunction preliminarily and permanently enjoining for a reasonable period of time Defendants, their officers, directors, agents, servants, employees, attorneys and all others acting through them, directly or indirectly, from providing and/or offering to provide customers with goods or services which are competitive with the licensed products as defined by the License Agreement;

k. Judgment that Plaintiff be awarded all damages for Defendants' breach of the covenant not to compete to which Plaintiff is legally entitled, in an amount to be determined at trial, adequate to compensate Plaintiff for Defendants' breach of contract.

l. That the claim of quiet title to intellectual property be determined by decree of this Court;

m. That the decree declare and adjudge that Plaintiff owns absolutely and is entitled to the quiet and peaceful possession of the property and that Defendants and all persons claiming under them, have no estate, right, title, lien or interest in or to the property adverse to Plaintiff;

n. That the decree permanently enjoin Defendants from asserting any claim in or to the property adverse to Plaintiff;

o. Judgment against Defendants for recovery of the possession of the property;

p. Judgment awarding costs and attorneys' fees as provided by law;

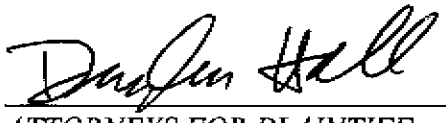
q. Judgment awarding pre-judgment interest against Defendants' as provided by law; and

r. Judgment awarding such other and further relief, both legal and equitable, as the Court may find just under the circumstances of the present case.

JURY DEMAND

Plaintiff LMK hereby demands a trial by jury on all counts and all issues.

Respectfully submitted,



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Performance Liner™
Non-Exclusive License Agreement
(T-Liner™)

THIS AGREEMENT, entered into by and between LMK Enterprises, Inc. an Illinois Corporation, of 1779 Chessie Lane, Ottawa, Illinois 61350, USA and Liqui Force Services of 2015 Sprinks Dr., RR2 Kingsville, Ontario N9Y 2E5, Canada.

WHEREAS, Licensor is the sole owner of the entire right, title and interest in and to Patents and Patent Applications (referred to hereafter as "Patent Rights") as shown in Exhibit "A."

WHEREAS, Licensor is the owner of the trademark T-Liner™

WHEREAS, Licensee desires a non-exclusive license under the Patent Rights, and the right to use the T-Liner™ trademark.

Now therefore, in consideration of the covenants set forth therein, the parties hereby agree as follows:

ARTICLE I - DEFINITIONS

1.1 The EFFECTIVE DATE of this Agreement shall be November 27, 1998.

1.2 PATENT RIGHTS shall mean the Patents and Patent applications set out in Exhibit "A" attached hereto and any divisionals, continuations, continuations-in-part, improvements and reissues thereof and any patents granted on reexamination thereof.

1.3 PROPRIETARY TECHNOLOGY shall mean all confidential information and know-how disclosed to Licensee by Licensor during the term of this Agreement and which is not known to the public, disclosed in an issued patent, or otherwise in the public domain.

1.4 LICENSED PRODUCTS shall mean devices or equipment coming within one or more claims of the Patent Rights or utilizing Licensors Proprietary Technology.

1.5 LICENSED SERVICES shall mean the method coming within one or more claims of the Patent Rights or utilizing Licensors Proprietary Technology.

1.6 MAIN/LATERAL REPAIR SERVICES shall mean the use of Licensed Products and Services which relate to lining a lateral pipe and a short section of a mainline pipe simultaneously utilizing an inversion method for installing the lateral portion and an inflation method for installing the mainline porion and the use of a fabric liner and/ or an inflation bladder by the same means.

1.7 LICENSED TRADEMARK shall mean the trademark T-Liner™ as used on or in connection with LICENSED PRODUCTS and/or SERVICES.

1.8 LICENSED TERRITORY shall mean the geographic territory identified in Exhibit "B."

ARTICLE II - OWNERSHIP

2.1 Licensee agrees that Licensor is the owner of the entire right, title, and interest in and to said Patent Rights, and the inventions disclosed and claimed therein, the Proprietary Technology, the trademark T-Liner™ and that it has the right to grant the License granted herein.

2.2 Licensee agrees that the Proprietary Technology is confidential until such time as it is disclosed in an issued patent or otherwise publicly disclosed; and that it is proprietary to Licensor. Licensee covenants to protect this Proprietary Technology from unauthorized use or inspection by others and not to duplicate or assist others in duplication of this or similar equipment, materials or technology.

ARTICLE III - GRANT OF LICENSE

3.1 Licensor hereby grants to Licensee the non-exclusive right and License, subject to the conditions herein set forth, only to use (not to make or sell) Licensed Products and only to use and sell Licensed Services for the limited purpose of Sectional and Lateral Repair Services. The License granted by this Agreement shall be limited to the Licensed Territory defined in attached Exhibit "B." This License shall not include the right to sub-license nor to bring suit for infringement.

3.2 Licensee shall mark all Licensed Products and literature promoting Licensed Products and Services with the appropriate patent notice, which shall include the patent numbers of any issued patent Rights and the term "Patent Pending" while the patent application is pending.

3.3 This license is limited to Licensee's use of any Licensed Products purchased from licensor only in the provision of Sectional and Lateral Repair Services.

3.4 Licensee will not perform or offer to perform Licensed Products or Services outside of the Licensed Territory.

ARTICLE IV - PAYMENT FOR PATENT LICENSE

4.1 At the signing of the license, Licensee will pay **$1.00 USD** for the nonexclusive territorial license. After the signing of the license the Licensee shall obtain contracts for the installation of the T-Liner process. At that time the Licensee shall purchase the necessary support equipment and listed in Exhibit "C". Therein the first year of operation and in each subsequent year, the Licensee agrees to purchase $30,000.00 in Kits the first year and then each subsequent year at the then current prices FOB Licensor factory and will make payment in full without offset within (30) thirty days of invoice. Failure to meet this minimum standard may result in termination of this License, at the sole option of the Licensor. Licensee may purchase additional equipment shown on Exhibit "C" at the current prices FOB Licensor factory and will make payment in full without offset within (30) days of invoice.

4.2 So long as Licensee purchases from Licensor all of its requirements for equipment and materials shown on Exhibit "C" for the provision of licensed products and services to its customers, there will not be royalties owed for this portion of the license. However, if the Licensee utilizes materials or equipment shown on Exhibit "C" that is not purchased from Licensor, then Licensee shall pay, as payment for this license, a royalty of 10% of the Licensee's sales proceeds for the Licensed Products and Services provided to its customers without equipment, products, or services purchased from Licensor.

ARTICLE V - GRANT OF LICENSE TRADEMARK

5.1 Licensor grants Licensee the non-exclusive right to use the trademark T-Liner on or in connection with the T-Liner Products and Services. This license shall be limited to the Licensed Territory.

5.2 Licensee's use of the trademark T-Liner shall be limited to the sale, promotion or offering for sale of the Licensed Products and Services, and shall not be utilized on or in connection with any other products or services or in the company name without Licensor's approval.

5.3 Licensor shall have the right, but not the obligation, to inspect and monitor during normal business hours the nature and quality of goods and services Licensee provides under the trade mark T-Liner. Licensee shall maintain the standards of quality of goods and services provided under these marks as Licensor shall specify from time to time.

5.4 Licensee shall not use or promote any products or materials outside the scope of this License which are competitive with the Licensed Products and Services during the term of this License. As used herein term "competitive" shall mean any product or service used for lining the interior of a lateral and main pipe connection with a cured in place pipe.

5.5 Upon termination of this Agreement, Licensee shall cease all use of the Licensed Trademark and shall return or destroy all printed materials bearing the Licensed Trademark.

5.6 Upon termination, Licensor will purchase any liner kits less a 30% restocking fee. Specialty liners (non standard liners) will have a 50% restocking fee. The Licensee will be responsible for shipping charges.

ARTICLE VI - INSURANCE AND HOLD HARMLESS

6.1 Licensee hereby agrees to hold Licensor harmless for all liability, attorneys fees, and other costs incurred by Licensor for claims made against Licensor by third parties arising from any act or omission on the part of Licensee.

6.2 Licensee shall name the Licensor as an additional insured under its Liability and Contractors Insurance Policy with minimum limits of One Million Dollars per each occurrence, per annum aggregate for injury to persons and annual aggregate for damage to property and provided a Certificate of such insurance with a thirty day notice of cancellation.

6.3 The Licensor does not represent or guarantee that the T-Liner™ does not nor will not infringe other patents. However, to the best of Licensor's knowledge the T-Liner™ process does not infringe upon any other patent and this knowledge is based upon Licensor's research and patent searches.

ARTICLE VII - TERM OF AGREEMENT

7.1 The term of this Agreement shall commence upon its EFFECTIVE DATE, and unless sooner terminated as herein provided, shall continue in full force and effect until the expiration of all the PATENT RIGHTS licensed hereunder.

ARTICLE VIII - RIGHT TO TERMINATE

8.1 Licensee shall have the right to terminate this Agreement for any reason by depositing notice thereof in the mail, address to Licensor, thirty days before the date at which the Licensee shall elect to have such terminations become effective. Such termination shall not relieve or excuse Licensee from performing all duties and obligations under this Agreement through the date of termination.

8.2 Licensor shall have the right, at its option, to terminate this License and divest Licensee of all rights granted to it by virtue hereof by giving a thirty day written notice to the Licensee upon the happening of any of the following events:

a) In the event that the licensee is in default in its performance of any of its obligations under this agreement, licensor shall, at its option, have the right to terminate this license by serving notice in writing to licensee that if default is not cured within one month after the date of such notice, the license shall terminate. This license shall automatically terminate at the end of the one month period, unless licensee cures its default and performs all of its duties and obligations under this agreement before the end of the one month period;

b) a competitor of the Licensor becomes a shareholder of consequence of the Licensee or the Licensee comes under the direct or indirect or de facto or control of any other person, firm or company (other than those presently exercising control), whether by sale, nationalization, conveyance, operation of law or otherwise;

c) the Licensee suffers the appointment of a receiver or files bankruptcy or is unable to pay for products and services in a timely manner;

d) due to this Agreement, in whole or in part, being ruled invalid or unenforceable for any reason;

e) the Licensee does not conform to the Licensor's or the industry standards in quality of workmanship.

ARTICLE IX - EFFECTS OF TERMINATION

9.1 Immediately upon termination, the Licensee shall cease any and all use of the T-Liner and its trademark.

9.2 Licensee covenants not to provide or offer to provide to customers any goods or services which are competitive with the Licensed Products and Services as defined in section 1.5 for a period of two years after termination of this agreement.

9.3 Licensor shall not be liable to Licensee upon any termination, expiration or non-renewal of this Agreement for compensation, reimbursement or damages on account of the loss of prospective profits on anticipated sales, or on account of expenditures, investments, lease commitments in connection with the business, or goodwill of License for any indirect, special or consequential damages.

9.4 Licensee shall surrender its rights hereunder peaceably and in good faith and save as provided hereinafter, make no use of the same.

ARTICLE X - MISCELLANEOUS

10.1 The construction and performance of this Agreement shall be governed by the laws of the State of Illinois. The parties agree that any disputes relative to the terms of this agreement will be resolved in Illinois courts and both parties consent to the jurisdiction of the Illinois courts for that purpose.

10.2 No waiver by either Licensee or Licensor, express or implied, of any breach of any term condition or obligation of this Agreement by the other shall be construed as a waiver of any subsequent breach of that term, condition, or obligation, or any other term, condition, or obligation of the Agreement of the same or different nature.

10.3 If it should be determined that one or more portions of this Agreement is or are invalid, such invalidation shall not operate to relieve the parties hereto of their rights and obligations with respect to each other under the remaining portions of this agreement.

10.4 Any inventions for improvements to the Licensed Products and Services, whether patentable or not, shall be owned by Licensor regardless whether or not developed by or invented by Licensor or Licensee or both.

10.5 This Agreement shall inure to the benefit of and will be binding upon all heirs, and administrators of Licensor and upon the legal representatives and successors of Licensee. This Agreement shall not be assignable by Licensee without prior approval from the Licensor.

10.6 This Agreement supersedes all oral and written agreements between Licensor and Licensee.

10.7 This Agreement may not be modified by either party, in whole or in part, except by an additional Agreement in writing signed by Licensor and Licensee.

10.8 Any notice required herein shall be sent by registered or certified mail and addressed as follows or to such other addresses as either party designates from time to time by written notice to the other:

10.9 The NON-DISCLOSURE agreement attached in EXHIBIT "D" shall be binding and shall become part of this license upon the signing. The Licensee shall be responsible for ensuring that all employee's associated with the T-Liner™ process have signed attachment "A".

IN WITNESS WHEREOF, the parties have respectively caused this instrument to be executed by an official thereunto duly authorized and their respective signatures to be hereunto affixed as of the day and year indicated.

LMK Enterprises, Inc. (Licensor)

Larry W. Kiest, Jr., President — Date: November 14, 1998

Liqui Force Services (Licensee)

Kim Lewis, Sr., President — Date: Dec. 1/98

Witness:

EXHIBIT "A"

Any Patent which is based upon a currently pending United States application entitled:

"Apparatus For Repairing A Pipeline And Method For Using Same" #08/852,590

"Apparatus And Method For Repairing The Junction Of A Sewer Mainline And Lateral" 08/927/220

"Apparatus And Method For Repairing the Junction Of A Sewer Mainline And Lateral" 09/118/048

EXHIBIT "B"

Licensed Territory will be non-exclusive for The Province of Ontario, Canada and the State of Michigan, USA.

T-Liner™ Equipment Schedule

T-Launching Device for diameters of 8" through 10" Wheels and extending adapters Light weight urethane lay-flat tube sufficient for 10' lateral lining Light weight urethane lay flat tube sufficient for 30' lateral lining Coned End Cap	$7,527.00
Positioning Device	$ 9,100.00
Portable 5-Line Hose Reel with slip rings/electric level rewind	$15,500.00
Mounted Controls	$ 975.00
Portable Air Control Box	$ 350.00
Wet-Out Platform with tray assembly	$ 3,500.00
Total	**$36,952.00**

Additional support equipment required but not included:

Enclosed trailer for liner wet-out
Portable generator at minimum 5kw
Hydraulic Power Pak minimum 5gpm @ 1,500 psi
Portable Air Compressor minimum 18 cfm @ 90psi

T-LINER™ KIT PRICE SCHEDULE

T-Liner kits are a base price $700.00 per "T" and $20.00 for each linear foot of lateral lining
Thirty feet (30') is the maximum length for the lateral portion of the T-Liner
There is no minimum footage required for the lateral lining length

TERMS AND CONDITIONS

1. $1.00 payable at signing of license.

2. Equipment payable within 30 days of signing license. The equipment will be shipped within 30 days of signing the license.

EXHIBIT "D"
CONFIDENTIAL DISCLOSURE AGREEMENT

THIS AGREEMENT is entered into on the dates set forth adjacent the signatures by and between LMK Enterprises (DISCLOSER), a corporation having its principal place of business at 1779 Chessie Lane, Ottawa, Illinois 61350, (hereinafter referred to as "RECEIVING PARTY") a corporation known as Liqui Force Services of 2015 Sprinks Drive., RR2 Kingsville, Ontario N9Y 2E5.

WHEREAS, DISCLOSER had developed certain confidential and proprietary information that relates to materials, processes and marketing for lateral/mainline pipe repair utilizing a liner/bladder assembly, inverting a portion of the assembly into a branch line, curing the impregnated tube and removing the bladder (herein after referred to as the "Confidential/Proprietary Information);

WHEREAS, DISCLOSER is willing to disclose to the RECEIVING PARTY the Confidential/Proprietary Information under the conditions hereinafter set forth; and

WHEREAS, the RECEIVING PARTY is willing to receive such Confidential/Proprietary Information for the sole purpose of business evaluation in accordance with the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein; DISCLOSER and the receiving agree as follows:

I. DISCLOSER agrees to disclose to the RECEIVING PARTY such portions of its Confidential/Proprietary Information to permit the RECEIVING PARTY to consider such information for business evaluation.

II. The RECEIVING PARTY agrees, on behalf of itself, its affiliates and any subsidiaries, and its employees and agents to keep confidential and secure all Confidential/Proprietary Information that received, and further agrees that it shall not, in perpetuity, directly, indirectly or otherwise use for itself or any other person, entity or otherwise use for itself or any other person, entity or otherwise copy, sell, transfer, disclose or make available to any other person, entity or otherwise, in any form or manner whatsoever, any Confidential/Proprietary Information, except as provided in this Agreement and specifically excluding the information set forth in paragraph III of this Agreement.

The RECEIVING PARTY further agrees to require all of its employees who are given access to DISCLOSER confidential information with a copy of this Agreement, and to require them to sign an acknowledgment of the form of Attachment A.

III. The foregoing obligations of non-use and non-disclosure shall not apply to any of the Confidential/Proprietary Information which:

(a) is in the public domain at the time of disclosure;

(b) is published or otherwise becomes part of the public domain through no fault of the RECEIVING PARTY;

(c) the RECEIVING PARTY can show by written records was possessed by it at the time of disclosure and was not acquired from another party under obligation of secrecy; or

(d) the RECEIVING PARTY can show was received after the time of disclosure from another party who is not under obligation of confidentiality to DISCLOSER with respect thereto.

(e) or as required by law.

Specific technical information discloser hereunder shall not be deemed to be in the public domain or in the possession of the RECEIVING PARTY merely because it is embraced by more general information in the public domain or in the possession of the RECEIVING PARTY.

IV. The RECEIVING PARTY represents and warrants that it will utilize the Confidential/Proprietary Information in accordance with this Agreement and only disclose the Confidential/Proprietary Information to their affiliates, subsidiaries and employees solely on a pre-selected need-to-know basis as may be necessary for business evaluation, and will not utilize all or any part of the Confidential/Proprietary Information in contradiction to this Agreement.

V. The RECEIVING PARTY further agrees that upon request by DISCLOSER the RECEIVING PARTY shall return to DISCLOSER any and all such Confidential/Proprietary Information received from DISCLOSER, including but not limited to, any copies or their reproductions that the RECEIVING PARTY or any affiliate, subsidiary, employee or agent of the RECEIVING PARTY may have made or received.

CONTINUATION OF CONFIDENTIAL DISCLOSURE AGREEMENT

LMK Enterprises, Inc. (Licensor)

Larry W. Kiest, Jr., President — Date: November 14, 1998

Liqui Force Services (Licensee)

Kim Lewis, Sr., President — Date: Dec 1/98

Witness:

ATTACHMENT A

I hereby acknowledge that I have received a copy of the attached Confidential Disclosure Agreement between DISCLOSER and my employer, _____,and that, in consideration of my employment by_____, I hereby agree to maintain all Confidential/Proprietary information disclosed to me pursuant to that Agreement in confidence.

Print Name: _____

Signed by: _____

Date: _____

Performance Liner™
Non-Exclusive License Agreement
(Sectional and Lateral)

THIS AGREEMENT, entered into by and between LMK Enterprises, Inc. an Illinois Corporation, of 1779 Chessie Lane, Ottawa, Illinois and ~~Liqui-Force Services of 2015 Sprinks Drive, R.R. #2 Kingsville, Ontario N9Y 2E5.~~ Liqui-Force Services (USA) Inc., 28781 Goddard Rd. Suite # 204, Romulus, MI, 48174 KKL LK Jr.

WHEREAS, Licensor is the sole owner of the entire right, title and interest in and to Patents and Patent Applications (referred to hereafter as "Patent Rights") as shown in Exhibit "A."

WHEREAS, Licensor is the owner of the trademark Performance Liner™.

WHEREAS, Licensee desires a non-exclusive license under the Patent Rights, and the right to use the Performance Liner™ trademark.

Now therefore, in consideration of the covenants set forth therein, the parties hereby agree as follows:

ARTICLE I - DEFINITIONS

1.1 The **EFFECTIVE DATE** of this Agreement shall be March 9, 1998.

1.2 PATENT RIGHTS shall mean the Patents and Patent applications set out in Exhibit "A" attached hereto and any divisionals, continuations, continuations-in-part, improvements and reissues thereof and any patents granted on reexamination thereof.

1.3 PROPRIETARY TECHNOLOGY shall mean all confidential information and know-how disclosed to Licensee by Licensor during the term of this Agreement and which is not known to the public, disclosed in an issued patent, or otherwise in the public domain.

1.4 LICENSED PRODUCTS shall mean devices or equipment coming within one or more claims of the Patent Rights or utilizing Licensors Proprietary Technology.

1.5 LICENSED SERVICES shall mean the method coming within one or more claims of the Patent Rights or utilizing Licensors Proprietary Technology.

1.6 SECTIONAL AND LATERAL REPAIR SERVICES shall mean the use of Licensed Products and Services which relate to lining an interior section of a pipeline and lining the interior of a lateral or branch pipeline utilizing an inversion method for installing a fabric liner and/ or an

EXHIBIT 2

inflation bladder by the same means.

1.7 LICENSED TRADEMARK shall mean the trademark Performance Liner™ as used on or in connection with LICENSED PRODUCTS and/or SERVICES.

1.8 LICENSED TERRITORY shall mean the geographic territory identified in Exhibit "B."

ARTICLE II - OWNERSHIP

2.1 Licensee agrees that Licensor is the owner of the entire right, title, and interest in and to said Patent Rights, and the inventions disclosed and claimed therein, the Proprietary Technology, the trademark Performance Liner™ and that it has the right to grant the License granted herein.

2.2 Licensee agrees that the Proprietary Technology is confidential until such time as it is disclosed in an issued patent or otherwise publicly disclosed; and that it is proprietary to Licensor. Licensee covenants to protect this Proprietary Technology from unauthorized use or inspection by others and not to duplicate or assist others in duplication of this or similar equipment, materials or technology.

ARTICLE III - GRANT OF LICENSE

3.1 Licensor hereby grants to Licensee the non-exclusive right and License, subject to the conditions herein set forth, only to use (not to make or sell) Licensed Products and only to use and sell Licensed Services for the limited purpose of Sectional and Lateral Repair Services. The License granted by this Agreement shall be limited to the Licensed Territory defined in attached Exhibit "B." This License shall not include the right to sub-license nor to bring suit for infringement.

3.2 Licensee shall mark all Licensed Products and literature promoting Licensed Products and Services with the appropriate patent notice, which shall include the patent numbers of any issued patent Rights and the term "Patent Pending" while the patent application is pending.

3.3 This license is limited to Licensee's use of any Licensed Products purchased from licensor only in the provision of Sectional and Lateral Repair Services.

3.4 Licensee will not perform or offer to perform Licensed Products or Services outside of the Licensed Territory.

ARTICLE IV - PAYMENT FOR PATENT LICENSE

4.1 At the signing of the license, Licensee will pay $40,000.00 for the nonexclusive territorial license. After the signing of the license the Licensee shall obtain contracts for the installation of the Performance Liner™ Sectional and Lateral processes. At that time the Licensee shall purchase the necessary support equipment and listed in Exhibit "C". Therein the first year of operation and in each subsequent year, the Licensee agrees to purchase $50,000.00 in Kits the first year and then each subsequent year at the then current prices FOB Licensor factory and will make payment in full without offset within (30) thirty days of invoice. Failure to meet this minimum standard may result in termination of this License, at the sole option of the Licensor. Licensee may purchase additional equipment shown on Exhibit "C" at the current prices FOB Licensor factory and will make payment in full without offset within (30) days of invoice.

4.2 So long as Licensee purchases from Licensor all of its requirements for equipment and materials shown on Exhibit "C" for the provision of licensed products and services to its customers, there will not be royalties owed for this portion of the license. However, if the Licensee utilizes materials or equipment shown on Exhibit "C" that is not purchased from Licensor, then Licensee shall pay, as payment for this license, a royalty of 10% of the Licensee's sales proceeds for the Licensed Products and Services provided to its customers without equipment, products, or services purchased from Licensor.

ARTICLE V - GRANT OF LICENSE TRADEMARK

5.1 Licensor grants Licensee the non-exclusive right to use the trademark Performance Liner on or in connection with the Performance Liner™ Products and Services. This license shall be limited to the Licensed Territory.

5.2 Licensee's use of the trademark Performance Liner™ shall be limited to the sale, promotion or offering for sale of the Licensed Products and Services, and shall not be utilized on or in connection with any other products or services or in the company name without Licensor's approval.

5.3 Licensor shall have the right, but not the obligation, to inspect and monitor during normal business hours the nature and quality of goods and services Licensee provides under the trade mark Performance Liner™. Licensee shall maintain the standards of quality of goods and services provided under these marks as Licensor shall specify from time to time.

5.4 Licensee shall not use or promote any products or materials outside the scope of this License which are competitive with the Licensed Products and Services during the term of this License. As used herein term "competitive" shall mean any product or service used for lining the interior of a lateral pipe and or pipe sections (spot repair) with a cured in place pipe.

5.5 Upon termination of this Agreement, Licensee shall cease all use of the Licensed Trademark and shall return or destroy all printed materials bearing the Licensed Trademark.

5.6 Upon termination, Licensor will purchase any liner kits less a 30% restocking fee. Specialty liners (non standard liners) will have a 50% restocking fee. The Licensee will be responsible for shipping charges.

ARTICLE VI - INSURANCE AND HOLD HARMLESS

6.1 Licensee hereby agrees to hold Licensor harmless for all liability, attorneys fees, and other costs incurred by Licensor for claims made against Licensor by third parties arising from any act or omission on the part of Licensee.

6.2 Licensee shall name the Licensor as an additional insured under its Liability and Contractors Insurance Policy with minimum limits of One Million Dollars per each occurrence, per annum aggregate for injury to persons and annual aggregate for damage to property and provided a Certificate of such insurance with a thirty day notice of cancellation.

6.3 The Licensor does not represent or guarantee that the Performance Liner™ does not nor will not infringe other patents. However, to the best of Licensor's knowledge the Performance Liner™ processes do not infringe upon any other patent and this knowledge is based upon Licensor's research and patent searches.

ARTICLE VII - TERM OF AGREEMENT

7.1 The term of this Agreement shall commence upon its EFFECTIVE DATE, and unless sooner terminated as herein provided, shall continue in full force and effect until the expiration of all the PATENT RIGHTS licensed hereunder.

ARTICLE VIII - RIGHT TO TERMINATE

8.1 Licensee shall have the right to terminate this Agreement for any reason by depositing notice thereof in the mail, address to Licensor, thirty days before the date at which the Licensee shall elect to have such terminations become effective. Such termination shall not relieve or excuse Licensee from performing all duties and obligations under this Agreement through the date of termination.

8.2 Licensor shall have the right, at its option, to terminate this License and divest Licensee of all rights granted to it by virtue hereof by giving a thirty day written notice to the Licensee upon the happening of any of the following events:

a) In the event that the licensee is in default in its performance of any of its obligations under this agreement, licensor shall, at its option, have the right to terminate this license by serving notice in writing to licensee that if default is not cured within one month after the date of such notice, the license shall terminate. This license shall automatically terminate at the end of the one month period, unless licensee cures its default and performs all of its duties and obligations under this agreement before the end of the one month period;

b) a competitor of the Licensor becomes a shareholder of consequence of the Licensee or the Licensee comes under the direct or indirect or de facto or control of any other person, firm or company (other than those presently exercising control), whether by sale, nationalization, conveyance, operation of law or otherwise;

c) the Licensee suffers the appointment of a receiver or files bankruptcy or is unable to pay for products and services in a timely manner;

d) due to this Agreement, in whole or in part, being ruled invalid or unenforceable for any reason;

e) the Licensee does not conform to the Licensor's or the industry standards in quality of workmanship.

f) the terms set forth in a letter dated March 1, 1998 from LMK Enterprises, Inc. Addressed to Liqui Force Services shall be part of this license agreement and the executed original shall accompany this agreement.

ARTICLE IX - EFFECTS OF TERMINATION

9.1 Immediately upon termination, the Licensee shall cease any and all use of the Performance Liner and its trademark.

9.2 Licensee covenants not to provide or offer to provide to customers any goods or services which are competitive with the Licensed Products and Services as defined in section 1.5 for a period of two years after termination of this agreement.

9.3 Licensor shall not be liable to Licensee upon any termination, expiration or non-renewal of this Agreement for compensation, reimbursement or damages on account of the loss of prospective profits on anticipated sales, or on account of expenditures, investments, lease commitments in connection with the business, or goodwill of License for any indirect, special or consequential damages.

9.4 Licensee shall surrender its rights hereunder peaceably and in good faith and save as provided hereinafter, make no use of the same.

ARTICLE X - MISCELLANEOUS

10.1 The construction and performance of this Agreement shall be governed by the laws of the State of Illinois. The parties agree that any disputes relative to the terms of this agreement will be resolved in Illinois courts and both parties consent to the jurisdiction of the Illinois courts for that purpose.

10.2 No waiver by either Licensee or Licensor, express or implied, of any breach of any term condition or obligation of this Agreement by the other shall be construed as a waiver of any subsequent breach of that term, condition, or obligation, or any other term, condition, or obligation of the Agreement of the same or different nature.

10.3 If it should be determined that one or more portions of this Agreement is or are invalid, such invalidation shall not operate to relieve the parties hereto of their rights and obligations with respect to each other under the remaining portions of this agreement.

10.4 Any inventions for improvements to the Licensed Products and Services, whether patentable or not, shall be owned by Licensor regardless whether or not developed by or invented by Licensor or Licensee or both.

10.5 This Agreement shall inure to the benefit of and will be binding upon all heirs, and administrators of Licensor and upon the legal representatives and successors of Licensee. This Agreement shall not be assignable by Licensee without prior approval from the Licensor.

10.6 This Agreement supersedes all oral and written agreements between Licensor and Licensee.

10.7 This Agreement may not be modified by either party, in whole or in part, except by an additional Agreement in writing signed by Licensor and Licensee.

10.8 Any notice required herein shall be sent by registered or certified mail and addressed as follows or to such other addresses as either party designates from time to time by written notice to the other:

10.9 The NON-DISCLOSURE agreement attached in EXHIBIT "D" shall be binding and shall become part of this license upon the signing. The Licensee shall be responsible for ensuring that all employee's associated with the Performance Liner™ process have signed attachment "A".

IN WITNESS WHEREOF, the parties have respectively caused this instrument to be executed by an official thereunto duly authorized and their respective signatures to be hereunto affixed as of the day and year indicated.

LMK Enterprises, Inc. (Licensor)

Larry Kiest, Sr. President

Name/Title-Larry W. Kiest, Jr., President

Liqui Force Services (Licensee) (USA) Inc.

Kim K. Lewis President

Name/Title-Kim Lewis, Sr., President

Witness: Nancy Dawn

EXHIBIT "A"

I. Issued U.S. Patent

Patent No. 5,501,248 issued 3/16/96.

II. Pending U.S. Applications

1. S.N. 293,697 "Method And Apparatus For Providing A Tubular Material Within A Pipeline"
2. S.N. 622,817
3. S.N. 840,035
4. S.N. 852,590
5. S.N. 876,527
6. S.N. 924,158
7. S.N. 927,220

III. Foreign Applications

1. Australia S.N. 26,213/97
2. European App. S.N. 97/304,429.0
3. Canada App. S.N. 2,173,127

EXHIBIT "B"

Licensed Territory will be non-exclusive for the state of Michigan.

EXHIBIT "C"

Sectional and Lateral Licensed Territory fee **$ 40,000.00**

Basic support equipment
1-gasoline powered vacuum pump complete (portable or stationary)
1-portable 4" - 12" calibration squeeze roller
1-banding tool and 100' of banding with 20 scru-buckles
1-digital thermometer

Sectional continued support equipment
2-air control boxes
2-dual hose line and reel
1-dual rope reel with 2-(5/16" x 600') polyester ropes
2-single rope reel with 1-(5/16" x 600') polyester rope
1- launching end cap for Launcherless liners 8" through 15"
1-launching device for 8" & 10" diameter liners with lengths up to 6'
1-launching device for 12" & 15" diameter liners with lengths up to 6'
1-launching device for 8" & 10" diameter liners with lengths up to 30'

Lateral continued support equipment
1-portable lateral launching unit 0' to 100' with controls and down hole attachments

Kits Initial order includes the following Sectional Kits:

1- 8" x 6' Launcher style	1- 8" x 3' Launcherless style
1- 10" x 6' Launcher style	1- 8" x 6" Launcherless style
1- 12" x 6' Launcher style	1- 10" x 6' Launcherless style

50' of 4" or 6" lining material complete in Kit form

Technical on-site training:
Training will consist of three (3) days field training on how to effectively install cured in-place pipe for the reconstruction of Service Lateral Pipes and sectional mainline repairs. The itemized cost for training does include airfare, lodging and meals for territories within the United States.

Total $ 78,535.00

TERMS AND CONDITIONS

1. $40,000.00 payable at signing of license.
2. Support equipment, liner kits and training $38,535.00 payable within 30 days of signing license. The equipment and kits will be shipped within 30 days of signing the license (providing payment has been received for equipment and liners).
3. Training can be deleted at the rate of $3,000.00 for three days onsite training.

Performance Liner™
SECTIONAL KIT SCHEDULE

Size of Kit	Kit Price Launcher	Kit Price Launcherless	mm Wall
8" x 3'	$ 437.00	$ 535.00	6mm
8" x 6'	$ 485.00	$ 595.00	6mm
8" x 10'	$ 650.00	$ 800.00	6mm
8" x 15'	$ 875.00	$ 1,075.00	6mm
8" x 20'	$ 1,180.00	$ 1,450.00	6mm
8" x 30'	$ 1,465.00	$ 1,825.00	6mm
10" x 3'	$ 477.00	$ 590.00	6mm
10" x 6'	$ 530.00	$ 650.00	6mm
10" x 10'	$ 750.00	$ 925.00	6mm
10" x 15'	$ 1,020.00	$ 1,280.00	6mm
10" x 20'	$ 1,360.00	$ 1,680.00	6mm
10" x 30'	$ 1,800.00	$ 2,220.00	6mm
12" x 3'	$ 580.00	$ 725.00	6mm
12" x 6'	$ 645.00	$ 800.00	6mm
12" x 10'	$ 900.00	$ 1,110.00	6mm
12" x 15'	$ 1,350.00	$ 1,665.00	6mm
12" x 20'	$ 1,800.00	$ 2,150.00	6mm
12" x 30'	$ 2,400.00	$ 2,950.00	6mm

***Note Resin Has A Shelf Life of 6 months.**

**** Prices are FOB Ottawa**

Size of Kit	Kit Price Launcher	Kit Price Launcherless	Kit Price Pull Coated	mm Wall
15" x 3'	$ 775.00	$ 925.00	$ 925.00	9mm
15" x 6'	$ 1,168.00	$ 1,365.00	$ 1,365.00	9mm
15" x 10'	$ 1,368.00	$ 1,600.00	$ 1,600.00	9mm
15" x 15'	$ 1,558.00	$ 1,820.00	$ 1,820.00	9mm
15" x 20'	$ 1,945.00	$ 2,300.00	$ 2,300.00	9mm
18" x 3'	$ 932.00	$ 1,090.00	$ 1,090.00	9mm
18" x 6'	$ 1,406.00	$ 1,650.00	$ 1,650.00	12mm
18" x 10'	$ 1,720.00	$ 2,125.00	$ 2,125.00	12mm
18" x 15'	N/A	N/A	$ 2,400.00	12mm
18" x 20'	N/A	N/A	$ 2,950.00	12mm
21" x 3'	N/A	$ 1,410.00	$ 1,410.00	12mm
21" x 6'	N/A	$ 1,910.00	$ 1,910.00	12mm
21" x 10'	N/A	$ 2,470.00	$ 2,470.00	12mm
21" x 15'	N/A	N/A	$ 3,100.00	12mm
21" x 20'	N/A	N/A	$ 3,800.00	12mm
24" x 3'	N/A	$ 1,625.00	$ 1,625.00	12mm
24" x 6'	N/A	$ 2,400.00	$ 2,400.00	12mm
24" x 10'	N/A	$ 3,210.00	$ 3,210.00	12mm
24" x 15'	N/A	$ 3,550.00	$ 3,550.00	12mm
24" x 20'	N/A	$ 4,000.00	$ 4,000.00	12mm

LMK Enterprises, Inc.
1779 Chessie Lane
Ottawa, IL 61350

Performance Liner™

LATERAL KIT SCHEDULE

Lateral kits $20.00 per linear foot with a minimum $300.00 order per kit

* Note Resin Has a Shelf Life of 6 months.

** Prices are FOB Ottawa

Launcher price list for the Performance Liner™ Sectional process

PIPE DIAMETER	FOR LINER KIT	PRICE
8 - 10 inch	up to 6 feet long	$1,250.00
8 - 10 inch	up to 15 feet long	$1,350.00
8 - 10 inch	up to 30 feet long	$1,450.00
12 - 15 inch	up to 6 feet long	$1,325.00
12 - 15 inch	up to 15 feet long	$1,450.00
12 - 15 inch	up to 30 feet long	$1,600.00
18-21-24 inch	up to 6 feet long	$1,400.00
18-21-24 inch	up to 15 feet long	$1,600.00
18-21-24 inch	up to 30 feet long	$1,900.00
30 - 42 inch	Up to 6 feet long	$2,400.00
Launcherless end cap		$ 850.00

Notes: The launcher is 4 feet longer than the liner length.

The inversion rope is 2.5 times longer than the launcher.

The new launchers have air ports at the cone end and the open end.

The new launchers now are made with a high abrasion resistant urethane that is light weight and last much longer than the blue lay flat.

Once the blue lay flat launchers are out of our stock, all launchers will be made with the new urethane hose.

Launchers may be rented on a weekly basis at a rate of 10% of the sale price.

Launcher price list for the Performance Liner™ Sectional process

PIPE DIAMETER	FOR LINER KIT	PRICE
8 - 10 inch	up to 6 feet long	$1,250.00
8 - 10 inch	up to 15 feet long	$1,350.00
8 - 10 inch	up to 30 feet long	$1,450.00
12 - 15 inch	up to 6 feet long	$1,325.00
12 - 15 inch	up to 15 feet long	$1,450.00
12 - 15 inch	up to 30 feet long	$1,600.00
18-21-24 inch	up to 6 feet long	$1,400.00
18-21-24 inch	up to 15 feet long	$1,600.00
18-21-24 inch	up to 30 feet long	$1,900.00
30 - 42 inch	Up to 6 feet long	$2,400.00
Launcherless end cap		$ 850.00

Notes: The launcher is 4 feet longer than the liner length.

The inversion rope is 2.5 times longer than the launcher.

The new launchers have air ports at the cone end and the open end.

The new launchers now are made with a high abrasion resistant urethane that is light weight and last much longer than the blue lay flat.

Once the blue lay flat launchers are out of our stock, all launchers will be made with h new urethane hose.

Launchers may be rented on a weekly basis at a rate of 10% of the sale price.

EXHIBIT "D"
CONFIDENTIAL DISCLOSURE AGREEMENT

THIS AGREEMENT is entered into on the dates set forth adjacent the signatures by and between LMK Enterprises (DISCLOSER), a corporation having its principal place of business at 1779 Chessie Lane, Ottawa, Illinois 61350, (hereinafter referred to as "RECEIVING PARTY") a corporation known as Liqui Force Services of 2015 Spinks Drive R.R. #2 Ontario, Canada N9Y 2E5.

WHEREAS, DISCLOSER had developed certain confidential and proprietary information that relates to materials, processes and marketing for pipe repair utilizing a liner/bladder assembly, inverting the assembly, curing the impregnated tube and removing the bladder (herein after referred to as the "Confidential/Proprietary Information);

WHEREAS, DISCLOSER is willing to disclose to the RECEIVING PARTY the Confidential/Proprietary Information under the conditions hereinafter set forth; and

WHEREAS, the RECEIVING PARTY is willing to receive such Confidential/Proprietary Information for the sole purpose of business evaluation in accordance with the terms and conditions hereinafter set forth;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein; DISCLOSER and the receiving agree as follows:

I. DISCLOSER agrees to disclose to the RECEIVING PARTY such portions of its Confidential/Proprietary Information to permit the RECEIVING PARTY to consider such information for business evaluation.

II. The RECEIVING PARTY agrees, on behalf of itself, its affiliates and any subsidiaries, and its employees and agents to keep confidential and secure all Confidential/Proprietary Information that received, and further agrees that it shall not, in perpetuity, directly, indirectly or otherwise use for itself or any other person, entity or otherwise use for itself or any other person, entity or otherwise copy, sell, transfer, disclose or make available to any other person, entity or otherwise, in any form or manner whatsoever, any Confidential/Proprietary Information, except as provided in this Agreement and specifically excluding the information set forth in paragraph III of this Agreement.

The RECEIVING PARTY further agrees to require all of its employees who are given access to DISCLOSER confidential information with a copy of this Agreement, and to require them to sign an acknowledgment of the form of Attachment A.

III. The foregoing obligations of non-use and non-disclosure shall not apply to any of the Confidential/Proprietary Information which:

(a) is in the public domain at the time of disclosure;

(b) is published or otherwise becomes part of the public domain through no fault of the RECEIVING PARTY;

(c) the RECEIVING PARTY can show by written records was possessed by it at the time of disclosure and was not acquired from another party under obligation of secrecy; or

(d) the RECEIVING PARTY can show was received after the time of disclosure from another party who is not under obligation of confidentiality to DISCLOSER with respect thereto.

(e) or as required by law.

Specific technical information discloser hereunder shall not be deemed to be in the public domain or in the possession of the RECEIVING PARTY merely because it is embraced by more general information in the public domain or in the possession of the RECEIVING PARTY.

IV. The RECEIVING PARTY represents and warrants that it will utilize the Confidential/Proprietary Information in accordance with this Agreement and only disclose the Confidential/Proprietary Information to their affiliates, subsidiaries and employees solely on a pre-selected need-to-know basis as may be necessary for business evaluation, and will not utilize all or any part of the Confidential/Proprietary Information in contradiction to this Agreement.

V. The RECEIVING PARTY further agrees that upon request by DISCLOSER the RECEIVING PARTY shall return to DISCLOSER any and all such Confidential/Proprietary Information received from DISCLOSER, including but not limited to, any copies or their reproductions that the RECEIVING PARTY or any affiliate, subsidiary, employee or agent of the RECEIVING PARTY may have made or received.

(LICENSOR) **LMK Enterprises, Inc.**

Larry Kiest Jr. President
Larry Kiest, Jr., President

March 9, 1998
Date

(LICENSEE) **Liqui Force Services (USA) Inc.** KKL

Kim K. Lewis - President
Kim Lewis, Sr., President

March 9, 1998
Date

Witness

ATTACHMENT A

I hereby acknowledge that I have received a copy of the attached Confidential Disclosure Agreement between DISCLOSER and my employer, _____,and that, in consideration of my employment by_____, I hereby agree to maintain all Confidential/Proprietary information disclosed to me pursuant to that Agreement in confidence.

Print Name: _____

Signed by: _____

Date: _____

US006039079A

United States Patent [19]

Kiest, Jr.

[11] Patent Number: 6,039,079

[45] Date of Patent: Mar. 21, 2000

[54] **APPARATUS AND METHOD FOR REPAIRING THE JUNCTION OF A SEWER MAIN LINE AND LATERAL PIPE**

[75] Inventor: **Larry W. Kiest, Jr.**, Ottawa, Ill.

[73] Assignee: **LMK Enterprises, Inc.**, Ottawa, Ill.

[21] Appl. No.: **09/118,048**

[22] Filed: **Jul. 17, 1998**

[51] **Int. Cl.**[7] **F16L 55/16**

[52] **U.S. Cl.** **138/98**; 138/97; 264/269; 264/516; 156/287

[58] **Field of Search** 138/98, 97; 264/269, 264/267, 516; 156/94, 287, 294, 574; 405/150.1

[56] **References Cited**

U.S. PATENT DOCUMENTS

5,044,405	9/1991	Driver et al.	138/98
5,049,003	9/1991	Barton	138/97 X
5,167,258	12/1992	Rice	138/98
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5,439,033	8/1995	Kamiyama et al.	138/98
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5,692,543	12/1997	Wood	138/98
5,927,341	7/1999	Taylor	138/98

FOREIGN PATENT DOCUMENTS

0 518 521 A3 12/1992 European Pat. Off. .

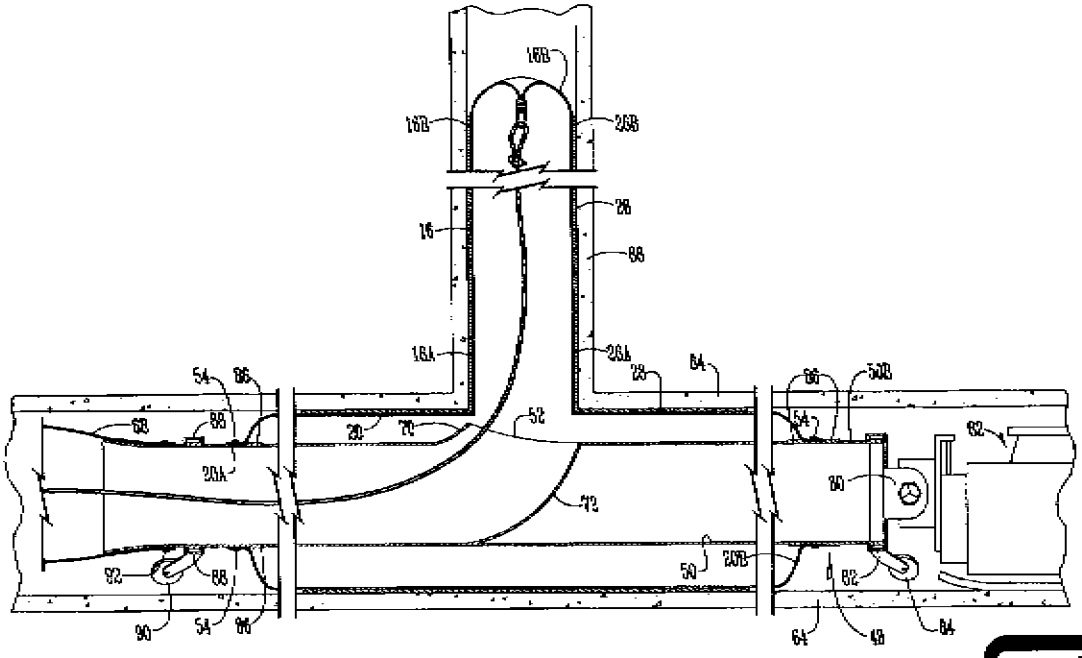
Primary Examiner—Patrick Brinson

Attorney, Agent, or Firm—Zarley, McKee, Thomte, Voorhees & Sease

[57] **ABSTRACT**

An apparatus and method for repairing the junction of a sewer main line and a lateral pipe includes a generally T-shaped flexible translucent urethane inflatable bladder having a main line portion and a lateral portion. The lateral portion is inverted through the main line portion and extends out one end thereof. A liner assembly of resin absorbent material is formed, with a tubular lateral liner connected to a flat sheet main liner, at a central opening in the flat sheet liner. Each liner is coated with a polymer coating, for an airtight seal, and a polymer tape is welded to the polymer coating on the lateral liner and the junction of the lateral liner and flat sheet, to form airtight seals. The liner assembly is then installed in the bladder assembly, by threading the lateral liner into the lateral bladder until the flat sheet contacts the main line bladder. The lateral liner is then impregnated with uncured resin and the liner/bladder assembly is installed on launcher. The flat sheet liner is also impregnated with uncured resin, and the launcher is then inserted in a sewer main line and aligned with a lateral pipe to be repaired. The lateral bladder is inflated to revert the bladder upwardly into the lateral pipe forcing the liner assembly into contact with the lateral pipe, the main line sewer pipe, and the junction thereof. Once the resin is cured, the bladder assembly and launcher are removed from the sewer pipe.

13 Claims, 8 Drawing Sheets



EXHIBIT

3

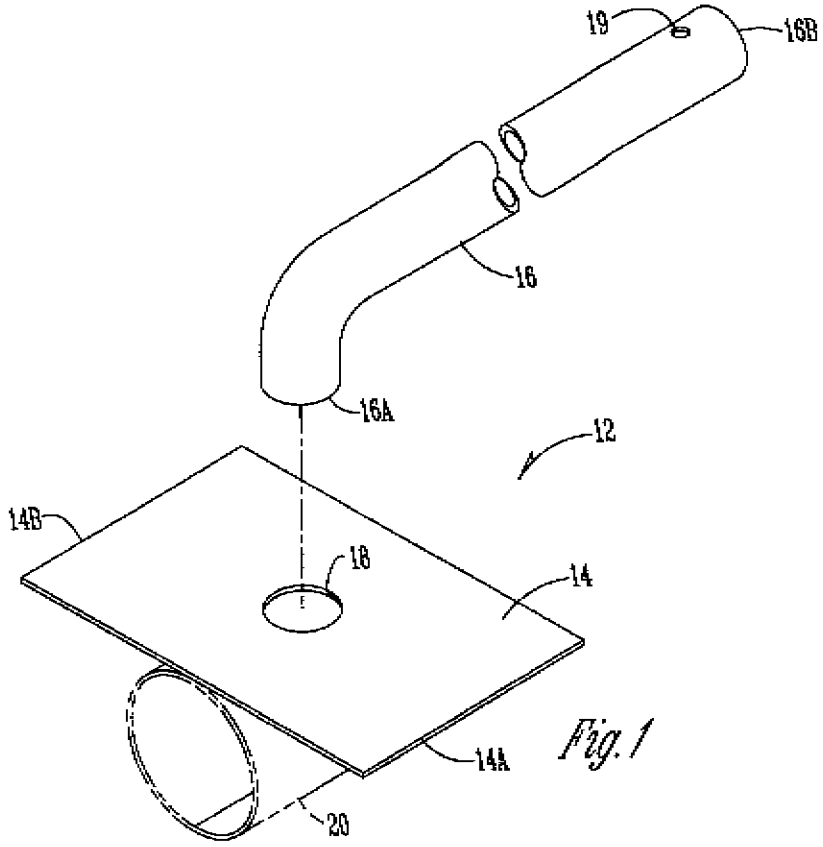


Fig. 1

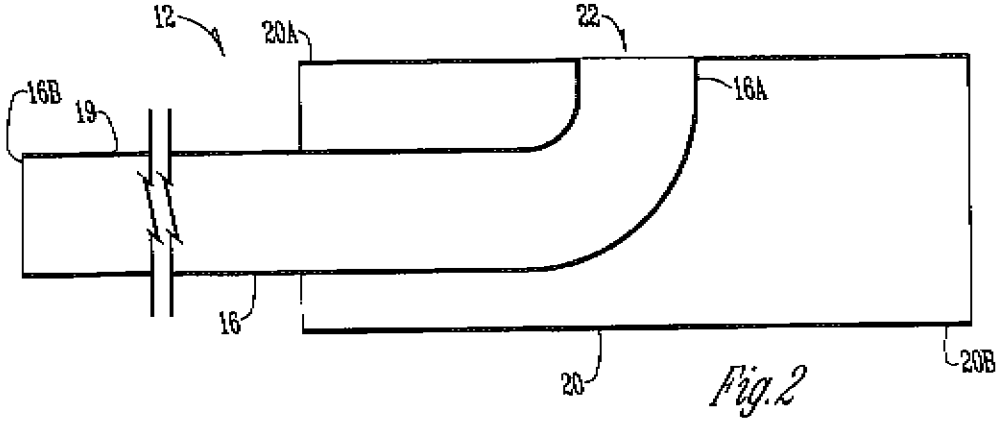


Fig. 2

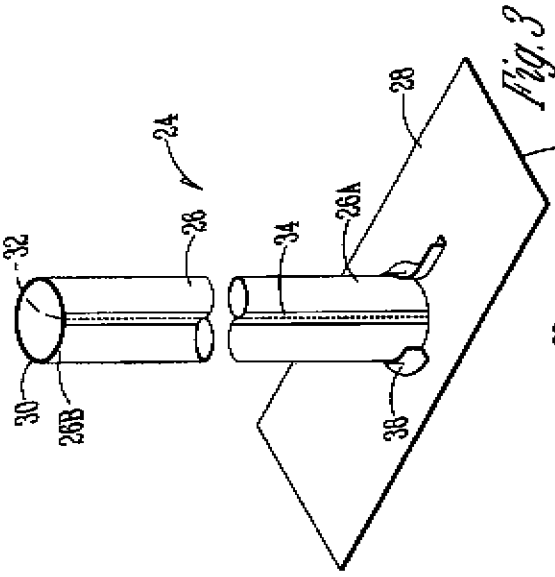


Fig. 3

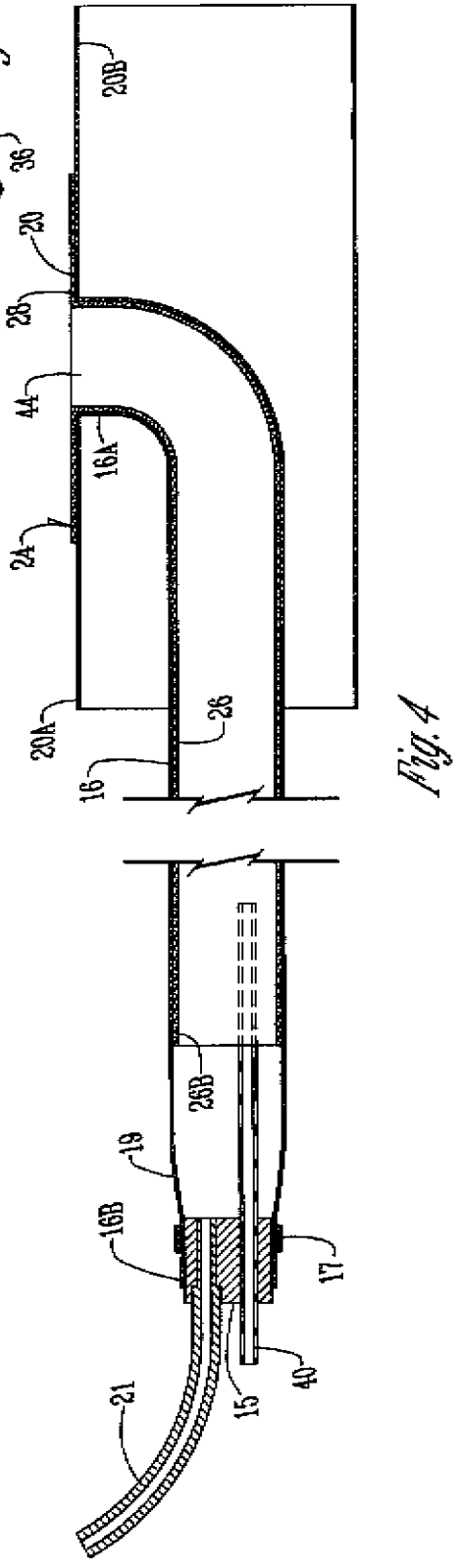


Fig. 4

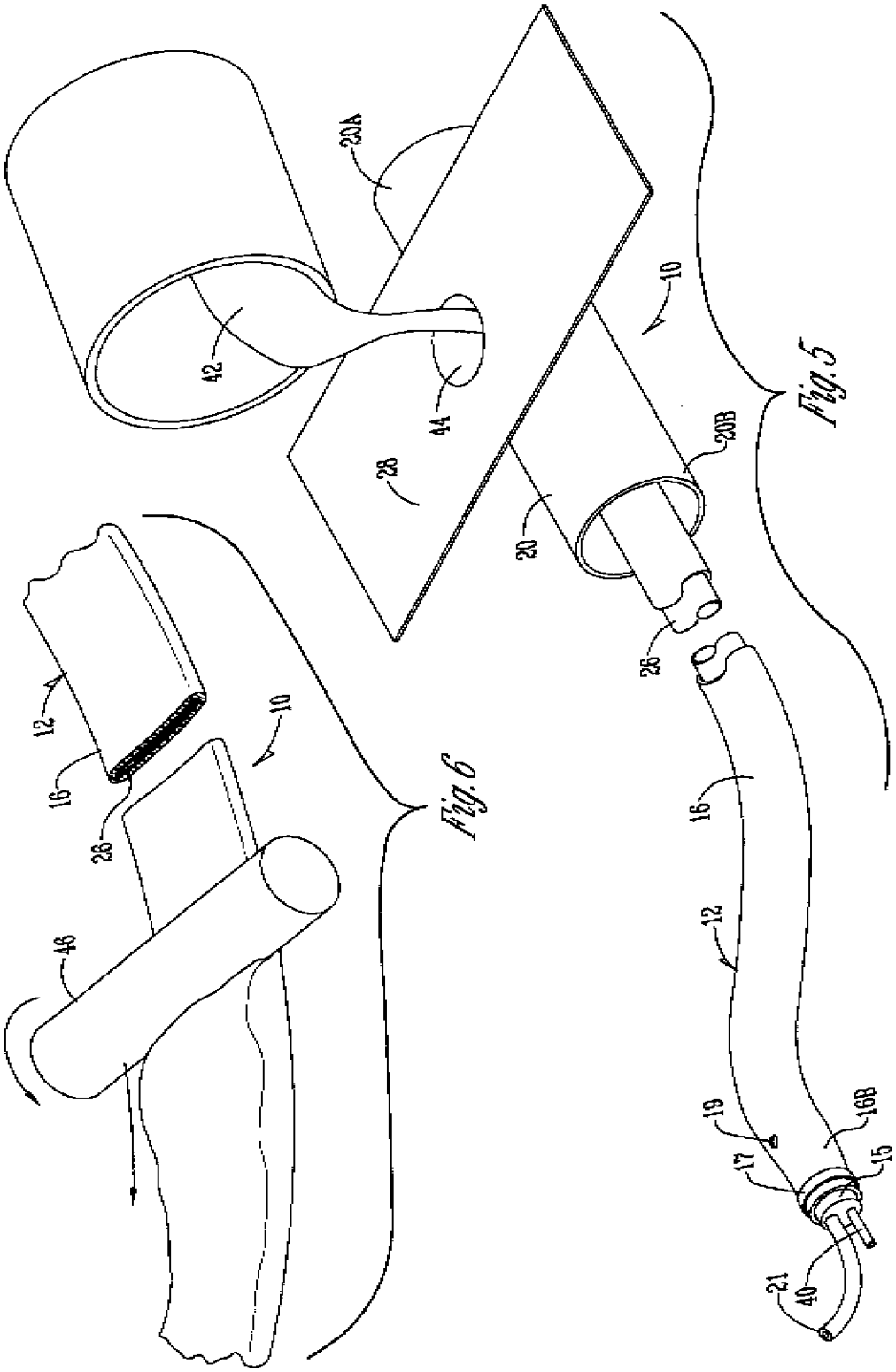


Fig. 5

Fig. 6

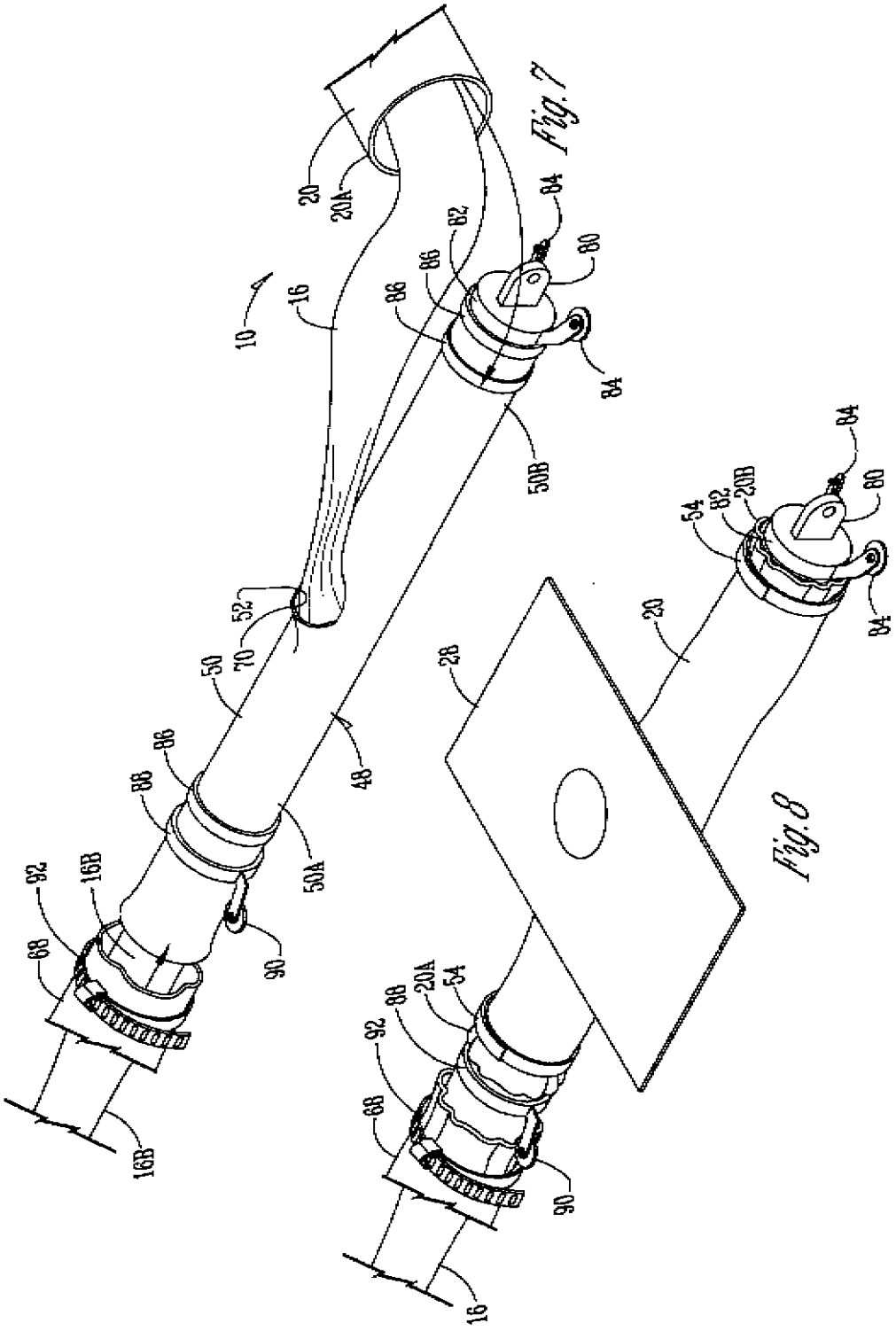


Fig. 7

Fig. 8

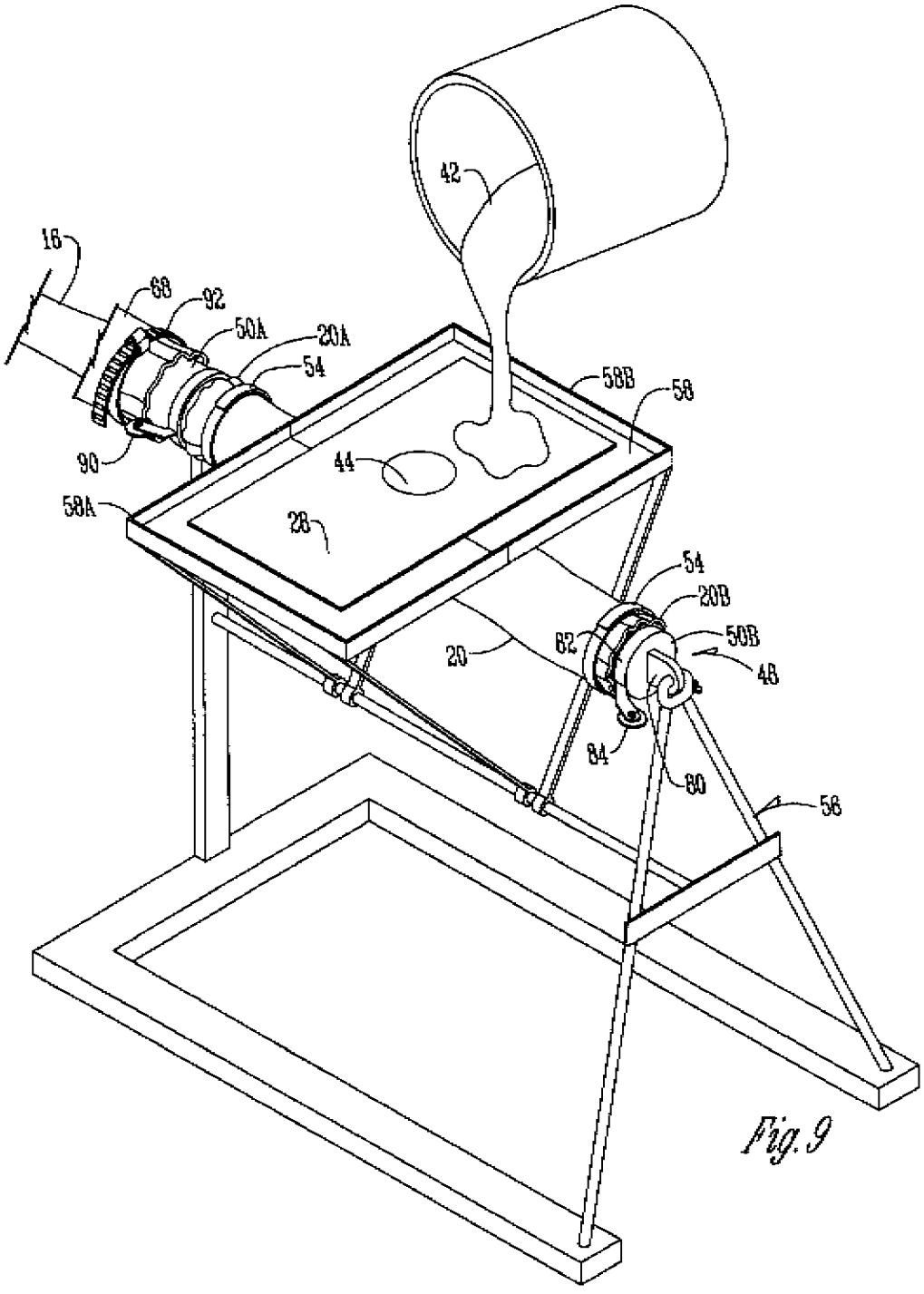


Fig. 9

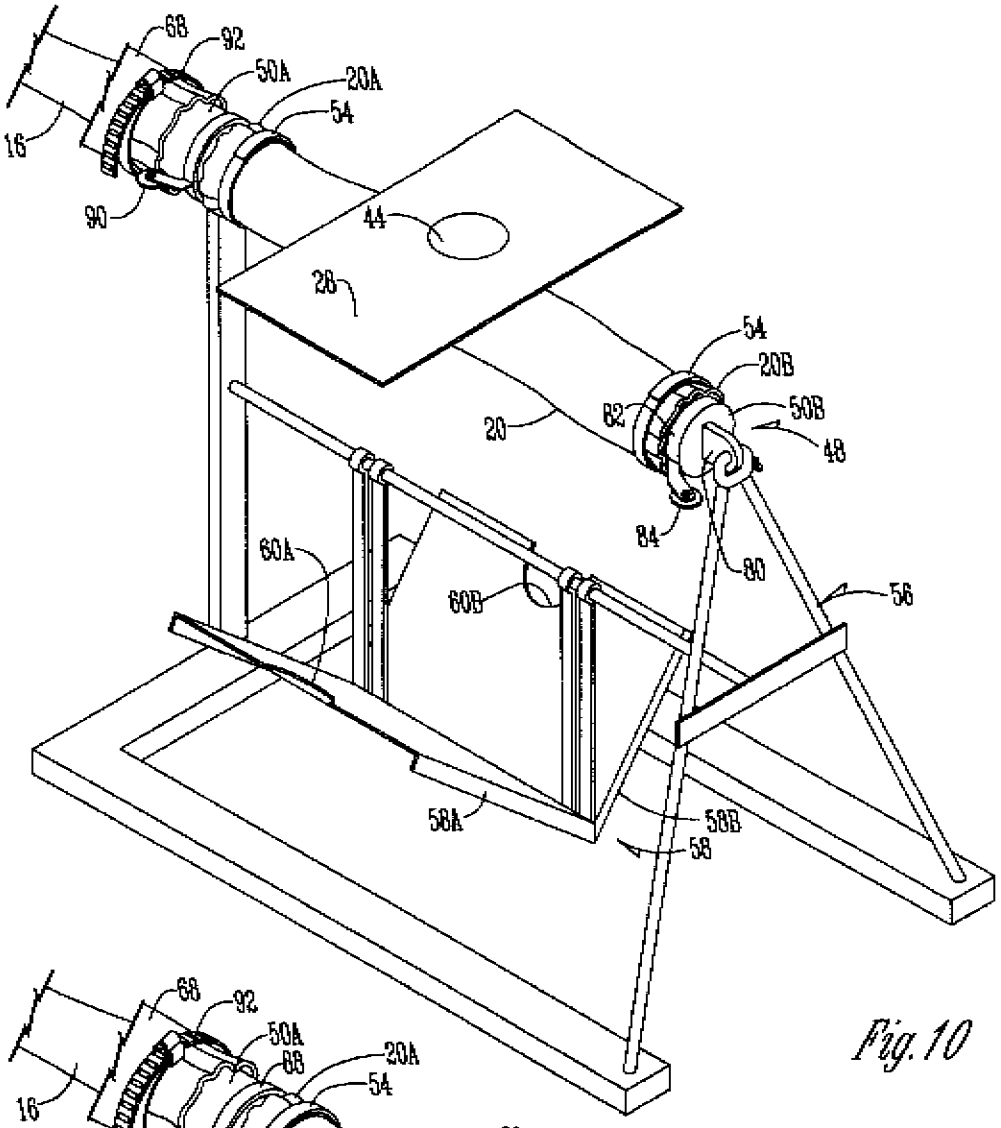


Fig. 10

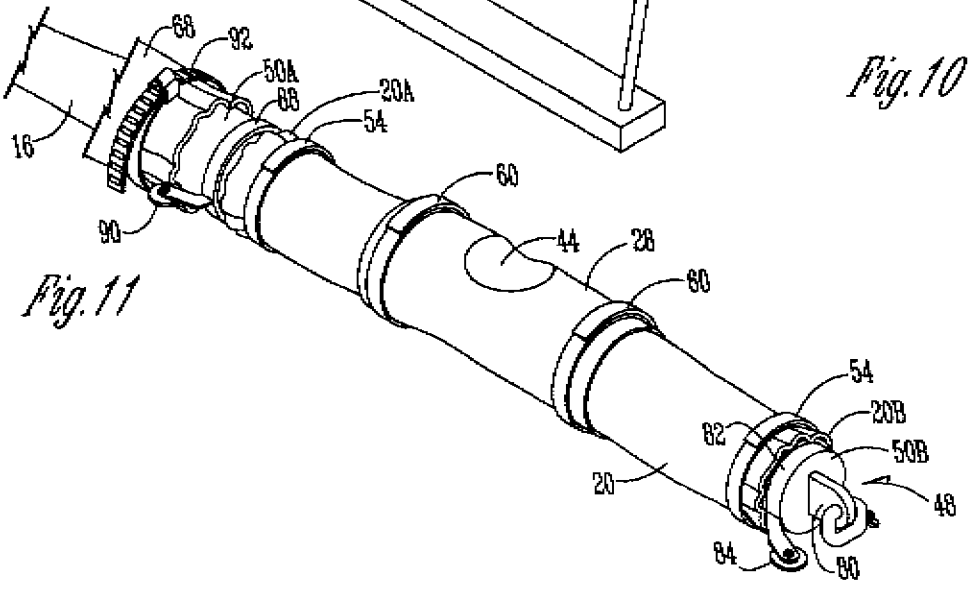


Fig. 11

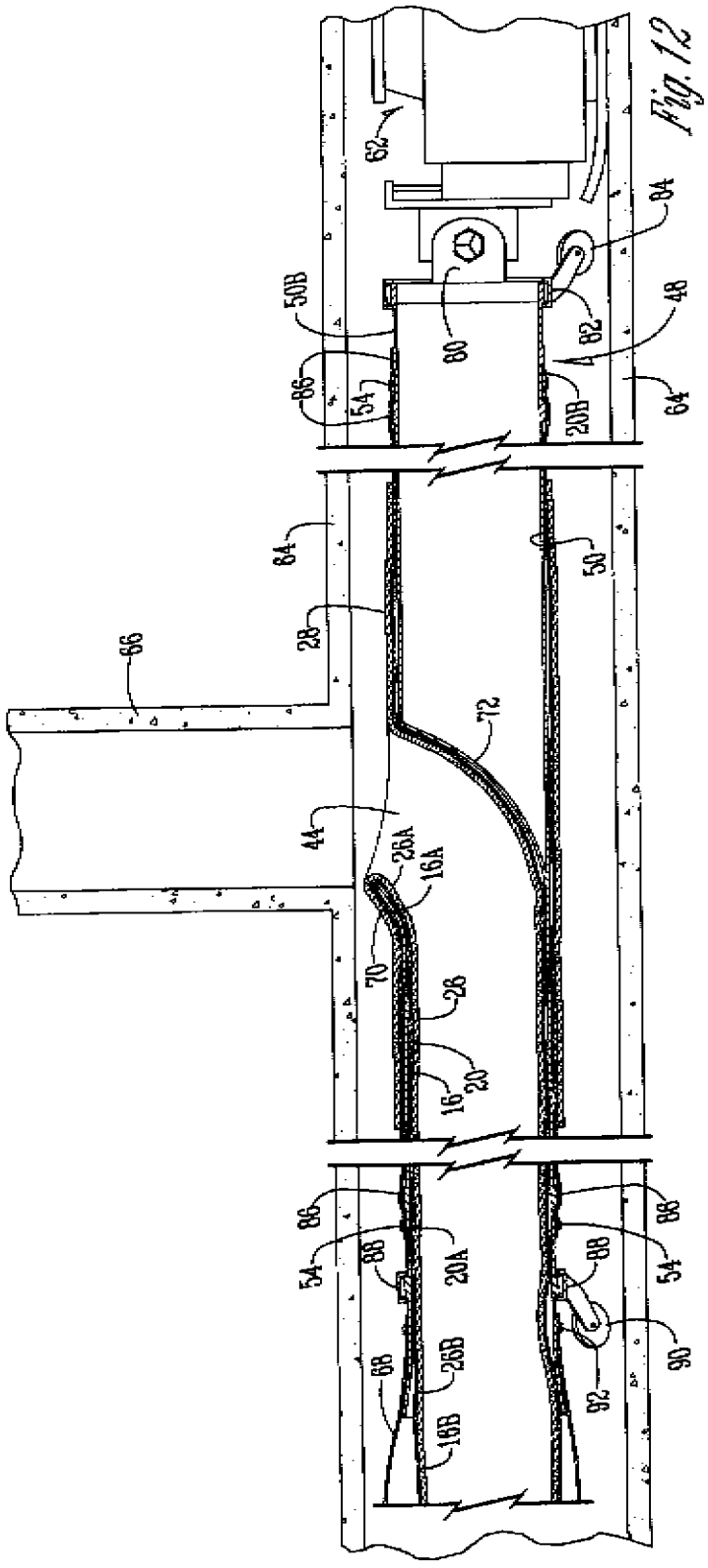


Fig. 12

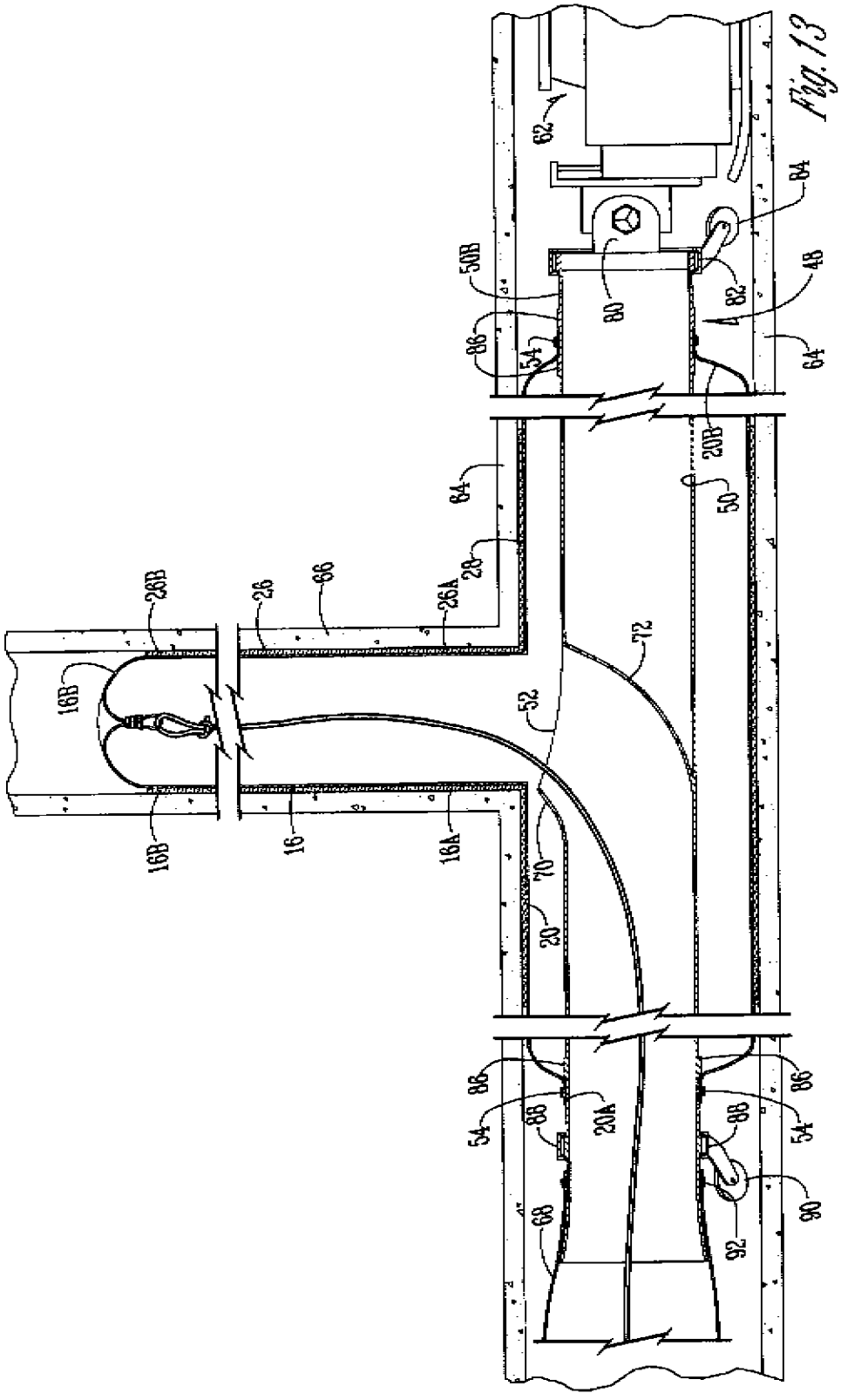


Fig. 13

APPARATUS AND METHOD FOR REPAIRING THE JUNCTION OF A SEWER MAIN LINE AND LATERAL PIPE

TECHNICAL FIELD

The present invention relates generally to sewer pipe line repair, and more particularly to an improved method and apparatus for installing a resin impregnated liner at the juncture of a sewer main line and lateral pipe, and extending down the lateral pipe.

BACKGROUND OF THE INVENTION

One method of repairing damaged sewer pipe is to excavate the area surrounding the sewer pipe and replace the broken portion. This is a very expensive and labor intensive solution, and is also an inconvenience to residents living in the area and utilizing roadways overlying the area.

Another solution is to reline the sewer pipes on site. Such methods typically utilize a resin coated liner which is inserted into the existing sewer pipe line and fitted against the interior of the sewer pipe. The liner is held against the interior of the pipe while the resin cures to form a new pipe lining within the existing pipe.

One example of such a method is shown in U.S. Pat. No. 4,366,012. In this patent, a process utilizing an elongated bladder tube having an inner tubular liner comprised of felt is shown. Uncured resin is introduced into the bladder tube and is used to impregnate the felt inner liner. The bladder tube and the tubular liner are then inserted into the end of the sewer pipe to be repaired, and moved to the area of the sewer pipe needing repair. Upon reaching the area of the sewer pipe needing repair, the impregnated felt liner is inverted out of the bladder tube so that it is on the outside surface of the bladder tube and is pressed against the interior surface of the sewer pipe. When the resin cures, a new pipe liner is provided at the area to be repaired.

In many cases connection of lateral pipes to main sewer lines for residential or other customers was frequently accomplished by forming a hole in the main line with a sledge or the like. The lateral pipe was then simply abutted against the hole, and then the excavation back filled to cover the juncture. Often, this juncture of the lateral with the main line would leak, and would not provide a tight sealed connection.

With the growing concern regarding the environmental impact of sewage leakage, such junctures are primary concern for repair, and can be repaired simultaneously with the lining of the lateral pipe by the method of the present invention.

SUMMARY OF THE INVENTION

It is therefore a general object of the present invention to provide an improved method and apparatus for repairing the juncture of a main sewer line with a lateral pipe.

Another object is to provide a method and apparatus for repairing the juncture of a lateral with a main line which may be accomplished solely from the sewer main line.

Another object is to provide an improved seal at the juncture of the lateral pipe to the main sewer line.

Another object is to use a single piece T-shaped or Y-shaped liner at the junction between the main sewer line and the lateral pipe which provides a full circle seal around the interior of the main sewer line and around the interior of the lateral pipe.

These and other objects of the present invention will be apparent to those skilled in the art.

SUMMARY OF THE INVENTION

The foregoing objects may be achieved by an apparatus for repairing the junction of a sewer main line and a lateral pipe made according to the present invention. The apparatus comprises a bladder assembly having an elongated main bladder tube and an elongated lateral bladder tube. The main bladder tube includes first and second opposite ends and a main bladder tube opening positioned therebetween. The lateral bladder tube has a first end connected to the main bladder tube opening and has a second end.

The apparatus also includes a liner assembly formed of resin absorbent material and having a main liner tube and a lateral liner tube. The main liner tube includes a first end, a second end and a main liner tube opening intermediate the first and second ends. The lateral liner tube has a first lateral line tube end in communication with the main liner tube opening and is connected to the main liner tube and sealed around the main liner tube opening.

The lateral bladder tube and the lateral liner tube are positioned at least partially within the main bladder tube, with the main liner tube being outside of, and surrounding the main bladder tube and being connected to the lateral liner tube through the main bladder tube opening.

The lateral liner tube is invertible through the main bladder tube opening to an inverted position outside of the main bladder tube whereby the main liner tube is on the exterior of the main bladder tube and the lateral liner tube is on the exterior of the lateral bladder tube.

The present invention also contemplates a method for forming a lateral/bladder assembly comprising forming a bladder assembly having a main bladder tube and a lateral bladder tube. The main bladder tube includes first and second opposite ends and an intermediate opening therebetween. The lateral bladder tube has a first end connected to the intermediate opening of the main bladder tube and has a second end.

The method includes the step of inserting the lateral bladder tube inside the main bladder tube through the intermediate opening. Next, a liner assembly is formed of resin absorbent material and includes a lateral liner tube having a first and second end and a liner sheet having a sheet opening there in surrounding and attaching the first end of the lateral liner tube. The second end of the lateral liner tube is inserted into the intermediate opening of the bladder tube and is positioned at least partially inside the main bladder tube with the first end of the lateral liner tube being adjacent the intermediate opening of the main bladder tube, and with the liner sheet outside of the main bladder tube. The liner sheet is then formed into a main liner tube wrapped around and surrounding the main bladder tube adjacent the intermediate opening of the main bladder tube.

An important feature of the present invention is the T-shaped or Y-shaped liner assembly. This liner assembly is constructed from a resin absorbent material and comprises a main liner tube and a lateral liner tube formed into a T-shaped or Y-shaped configuration. The single piece liner assembly is impregnated with an uncured resinous material capable of curing and hardening. The liner assembly is then positioned within the sewer main line pipe in a position wherein the lateral liner tube extends within the lateral sewer pipe and the main liner tube is within the main line sewer pipe. The main liner tube and the lateral liner tube are then pressed radially outwardly against the interior surfaces of

the main line sewer pipe and the lateral line sewer pipe respectively. The resin is permitted to cure and harden to form the liner assembly into a single piece whereby the main liner tube provides a full circle seal around the interior of the main sewer pipe on both sides of the damaged junction and the lateral liner tube provides a full circle seal around the interior of the lateral sewer pipe adjacent the damaged junction.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is an exploded perspective view showing the assembly of the bladder tube of the present invention;

FIG. **2** is a sectional view through the completed bladder tube shown in FIG. 1;

FIG. **3** is a perspective view of a liner assembly being constructed for the liner/bladder assembly of the present invention;

FIG. **4** is a sectional view similar to FIG. **2**, but with the liner assembly installed in the bladder assembly, to form the liner/bladder assembly;

FIG. **5** is a pictorial view showing the introduction of uncured resin into the liner/bladder assembly;

FIG. **6** is an enlarged perspective view showing using a roller to facilitate impregnating the liner with the resin;

FIG. **7** is a pictorial view of the liner/bladder assembly being installed on a launcher;

FIG. **8** is a view similar to FIG. **7**, showing a further step in connecting the liner/bladder assembly to the launcher;

FIG. **9** is a pictorial view of the launcher with the liner/bladder assembly connected thereto, supported on a work platform;

FIG. **10** is a view similar to FIG. **9**, showing a subsequent step in attaching the liner/bladder assembly to the launcher;

FIG. 11 is an enlarged perspective view of the launcher with the liner/bladder assembly attached thereto and ready for installation in a sewer line;

FIG. **12** is a sectional view through the liner/bladder assembly within a sewer line, showing the assembly position within a main line ready for expansion into a lateral pipe;

FIG. **13** is a sectional view similar to FIG. **12**, but with the liner/bladder assembly expanded to install the liner.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, in which similar or corresponding parts are identified with the same reference numeral, and more particularly to FIG. **1**, the T-shaped bladder assembly is designated generally at **12** and forms a part of the liner/bladder assembly **10** shown in FIG. **4**. While the bladder assembly **12** is shown to be T-shaped it may also be Y-shaped or otherwise shaped to accommodate the angle at which the main sewer pipe and lateral sewer pipe are disposed relative to one another. Bladder assembly **12** includes a flat sheet **14** of translucent urethane scrim material which is connected to a lateral bladder tube **16** also formed of translucent urethane scrim material. Lateral bladder tube **16** is an elongated member having first and second ends **16A** and **16B** respectively, with the first end **16A** attached around an opening **18** located generally centrally in flat sheet **14**. Preferably, lateral tube **16** is attached to sheet **14** by welding or the like to form an airtight seal at the juncture.

Flat sheet **14** is then formed into a tube and two longitudinal side edges **14A** and **14B** are welded together to form a main line bladder tube **20** (shown in broken lines in FIG. 1). Thus, main line bladder tube **20** and lateral bladder tube **16** form a T-shaped or Y-shaped bladder assembly **12** which is a single integral piece that is translucent.

Referring to FIG. **2**, the second end **16B** of lateral bladder tube **16** is inverted and drawn through the main line bladder tube **20** and out a first end **20A** of the main line bladder tube **20**, such that the first end **16A** of the lateral bladder **16** is inverted to form an opening **22** in the side wall of main line bladder tube **20**.

Referring now to FIG. **3**, the liner assembly utilized in the liner/bladder assembly **10** shown in FIG. **4** is designated generally at **24**. Liner assembly **24** includes a tubular lateral liner **26** connected to a flat sheet liner **28**. Both liners **26** and **28** are formed of felt or other resin absorbent material. Lateral liner **26** is formed by connected side edges of a sheet of liner material with a polymer coating on one side, such that the polymer coating **30** is on the exterior of the tube being formed. The edges of the sheet are sewn together at a seam **32**, and a strip of polymer tape **34** is welded over the seam to form an airtight seal.

Flat sheet liner **28** has a central opening formed therein, and has a polymer coating **36** on the top surface thereof. The lateral liner tube **26** is sewn to the flat sheet liner **28** around the opening, and a strip of polymer tape **38** is then welded continuously around the juncture to form an airtight seal.

Once liner assembly **24** has been completed, the second end **26B** of the lateral liner **26** is inserted into the opening **22** in the side of main line bladder **20** and drawn into the lateral bladder **16** until the liner flat sheet **28** contacts the main line bladder **20**. This step may be accomplished by attaching a rope (not shown) to end **26B** of the lateral liner **26**, and threading the rope through lateral bladder tube **16**. Pulling the rope then causes the lateral liner **26** to move to the position shown in FIG. **4**.

The second end **16B** of the lateral bladder is closed off by inserting plug **15** which is held in place by a clamp **17**. Extending through plug **15** are a PVC air pipe **21** and wick **40**, as shown in FIGS. **4** and **5**. Vacuum opening **19** is provided in the end **16B** of bladder tube **16**.

A quantity of curable resin **42** in liquid form is then introduced into the opening **44** of flat sheet liner **28** so as to continue into the lateral liner **26** within lateral bladder **16** (shown in FIG. **5**). A vacuum source (not shown) is connected over the vacuum opening **19** to collapse the walls of the lateral bladder **16** and lateral liner **26** as shown in FIG. **6**. The wick **40** will provide a path for evacuating gas from the lateral bladder **16** until the curable resin moves to the down stream end **16B** of lateral liner **16** and completely impregnates the liner. Because the bladder assembly **12** is formed of a translucent material, it is possible to visually verify that the lateral liner **26** is completely impregnated with resin while inside the lateral bladder **16**. A roller **46** is preferably utilized to move the slug of resin and assist in impregnating the liner **26** with the resin material.

Referring now to FIGS. **7** and **8**, the liner/bladder assembly **10** is loaded into a launcher **48** for installation into a sewer pipe. Launcher **48** includes a hollow cylindrical tube **50** having forward and rearward ends **50A** and **50B** respectively. An aperture **52** is formed generally through the side wall of the launcher tube **50**. The left hand edge of aperture **52** is provided with an upwardly extending flange **70** which facilitates the sliding of lateral bladder tube **16** into the launcher tube **50**. The right side of the aperture **52** is provided with a downwardly curved wall **72** (FIG. **12**).

Launcher **50** includes a clevis **80** mounted adjacent its rear end. Surrounding the rear end **50B** of launcher **50** is a

ring bearing **82**, and mounted to ring bearing **82** are a pair of wheels **84** located at the 5 o'clock and 7 o'clock positions when viewed from an end view (not shown). The ring bearing **82** permits the wheels **84** to remain stationary while the entire body of the launcher **50** can be rotated about its longitudinal axis. Protruding outwardly from the surface of launcher tube **50** adjacent the rear end **50B** are a pair of clamping ribs **86**. Similarly a clamping rib **86** is provided adjacent the forward end **50A**. A circular ring bearing **88** is also provided adjacent the forward end **50***a* and includes a pair of wheels **90** mounted thereon.

Liner/bladder assembly **10** is installed on the launcher **48** by inserting the second end **16B** of lateral bladder **16** through aperture **52** and through launcher tube **50** and out the forward end **50A** of the launcher tube **50**. As the main line bladder tube **20** approaches the launcher **48**, the rearward end **50B** of the launcher tube **50** is inserted into the first end **20A** of the main line bladder tube **20**, as shown in FIG. **8**. The flat sheet liner **28** is moved over the launcher side wall aperture **52**, with the main line bladder **20** extending on opposite sides of aperture **58**.

As shown in FIGS. **9–11**, the ends **20A**, **20B** of the main line bladder tube **20** are attached to the forward and rearward ends **50A** and **50B** of launcher tube **50** by bands **54**, and the launcher tube is connected to a support frame **56** which holds the launcher **48** in the air. A collapsible hose **68** is clamped to the forward end **50***a* of launcher tube **50** by means of a clamp **92**.

A two piece platform **58** is pivoted up into position to support the flat sheet liner **28** above the launcher **48**. As shown in FIG. **10**, the two piece platform **58** includes two halves **58A** and **58B** with semicircular holes **60A** and **60B** which will form an aperture through which the lateral lining will extend when the platform is moved to the support position shown in FIG. **9**.

Uncured resin **42** is then poured onto the flat sheet liner **28** and worked into the liner material. The two piece platform **58** is then separated and lowered, as shown in FIG. **10**, and the flat sheet liner **28** is wrapped around the main line bladder **20**, with one side edge **28A** overlapping the other side edge **28B**, as shown in FIG. **11**. Side edges **28A** and **28B** are temporarily held tightly together with straps **60** of hook and loop fastener, tape, rubber bands, or other similar fasteners.

A positioning robot **62** is then attached to the rearward end **50***b* of launcher tube **50**, as shown in FIG. **12** and is used to introduce the launcher **48** and liner/bladder assembly **10** into the sewer main line **64**. Wheels **84**, **90** facilitate movement of assembly **10** within the main sewer line **64**. The lateral liner opening **44** is aligned with the lateral pipe **66** to be repaired. Bearings **82**, **88** permit the robot **62** to rotate assembly **10** a full 360° so as to obtain alignment. Robot **62** also is capable of extending or retracting to move assembly **10** up to six inches for final exact alignment.

Once positioned, air pressure is applied within the launcher tube **50** via a "lay flat" tube **68** connected to the forward end **50***a* of launcher tube **50**, to inflate the lateral bladder **16** and invert the lateral bladder upwardly into lateral pipe **66**. The air pressure also presses the main liner **20** radially outwardly against main sewer line **64** and presses lateral liner **26** radially outwardly against lateral pipe **66** until the resin impregnated in the lateral liner **26** and main line liner **28** cures. Once cured, the generally T-shaped or Y-shaped liner assembly **24** is a one piece liner connecting the main pipe **64** with the lateral pipe **66** to seal them together. It provides full circle sealing of both the lateral pipe **66** and the main pipe **64**. Because of the use of the polymer coated liner assembly **24**, the actual liner assembly can be tested prior to installation in the ground, to ensure an airtight connection.

Whereas the invention has been shown and described in connection with the preferred embodiment thereof, many modifications, substitutions and additions may be made which are within the intended broad scope of the appended claims.

I claim:

1. A method for forming a liner/bladder assembly for repairing the junction of a main line pipe and a lateral pipe, said method comprising:

forming a main bladder tube and a lateral bladder tube, said main bladder tube having first and second opposite ends and an intermediate opening therebetween, said lateral bladder tube having a first end connected to said intermediate opening of said main bladder tube and having a second end;

inserting said lateral bladder tube inside said main bladder tube through said intermediate opening; forming a lateral liner tube and a liner sheet of resin absorbent material, said lateral liner tube having first and second ends, said liner sheet having a sheet opening therein surrounding and attached to said first end of said lateral liner tube;

inserting said second end of said lateral liner tube into said intermediate opening of said main bladder tube and positioning said lateral liner tube at least partially inside said main bladder tube with said first end of said lateral liner tube being adjacent said intermediate opening of said main bladder tube and with said liner sheet outside said main bladder tube;

forming said liner sheet into a main liner tube wrapped around and surrounding said main bladder tube adjacent said intermediate opening of said main bladder tube;

impregnating said main liner tube and said lateral liner tube with an uncured resinous material capable of curing in a predetermined length of time, said impregnating step being done after said inserting step.

2. A method according to claim **1** and further comprising impregnating said liner sheet with said uncured resinous material before said step of forming said liner sheet into a main liner tube.

3. A method according to claim **1** and further comprising taking a launcher tube having first and second opposite ends and a launcher tube opening therebetween, and positioning said main bladder tube in surrounding relation to said launcher tube with said launcher tube opening and said intermediate opening of said main bladder tube being in registered alignment and with said first and second ends of said launcher tube protruding outwardly from said first and second opposite ends of said main bladder tube.

4. A method according to claim **3** and further comprising attaching said first and second opposite ends of said main bladder tube in sealed engagement with the exterior of said launcher tube.

5. Apparatus for repairing the junction of a sewer main line and a lateral pipe connected thereto, comprising:

an elongated main bladder tube and an elongated lateral bladder tube, said main bladder tube having first and second opposite ends and a main bladder tube opening positioned there between, said lateral bladder tube having a first end connected to said main bladder tube opening;

a main liner tube and a lateral liner tube formed of resin absorbent material, said main liner tube having first and second opposite ends and a main liner tube opening there between, said lateral liner tube having a first lateral liner tube end connected to said main liner tube opening;

a launcher tube having first and second opposite ends and a launcher tube opening there between;

said main bladder tube being outside and surrounding said launcher tube and said lateral bladder tube extending through said launcher tube opening into the inside of said launcher tube;

said main liner tube being outside and surrounding said main bladder tube and said launcher tube, said lateral liner tube extending through said launcher tube opening into the inside of both said launcher tube and said lateral bladder tube;

said lateral bladder tube and said lateral liner tube being invertible through said launcher tube opening to an inverted position outside said launcher tube wherein said main liner tube and said lateral liner tube are on the exterior of said main bladder tube and said lateral bladder tube.

6. An apparatus according to claim 5 and further comprising said first and second opposite ends of said main bladder tube being attached to and sealed around the exterior of said launcher tube.

7. A method for repairing a damaged junction between a main line sewer pipe and a lateral sewer pipe, said method comprising:

forming a main bladder tube and a lateral bladder tube, said main bladder tube having first and second opposite ends and a main bladder tube opening there between, said lateral bladder tube having a first end connected to said main bladder tube opening;

forming a main liner member and a lateral liner tube of resin absorbent material, said main liner member having a main liner opening therein, said lateral liner tube having a first lateral liner tube end connected to said main liner opening;

inserting said lateral liner tube at least partially inside said lateral bladder tube while at the same time keeping said main liner member at least partially outside said main bladder tube;

inserting said lateral liner tube and said lateral bladder tube at least partially into the inside of a launcher tube through a launcher tube opening in said launcher tube while at the same time keeping said main bladder tube and said main liner member at least partially outside of said launcher tube.

8. A method according to claim 7 and further comprising inserting said launcher tube into said main line of said sewer, registering said launcher tube opening with said junction of sail lateral pipe and said main line pipe, and inverting said lateral bladder tube and said lateral liner tube out of said launcher tube into said lateral pipe with said lateral liner tube being outside said lateral bladder tube.

9. A method according to claim 8 and further comprising pressing said main liner tube radially outwardly against said main line pipe, permitting said curable resin to cure and harden, and removing said launcher tube, said main bladder tube, and said lateral bladder tube from said main line sewer pipe.

10. A method for repairing a damaged junction between a main line sewer pipe and a lateral sewer pipe, said method comprising:

constructing a single piece liner assembly from a resin absorbent material, said liner assembly comprising a main liner tube and a lateral liner tube, said main liner tube having first and second opposite ends and a main liner tube opening there between, said lateral liner tube having first and second ends, one of which is connected to said main liner tube opening of said main liner tube to provide communication from the interior of said lateral liner tube through said main liner tube opening to the interior of said main liner tube;

impregnating said main liner tube and said lateral liner tube with an uncured resinous material capable of curing and hardening;

mounting said liner assembly to a launcher tube having first and second opposite ends and a launcher tube opening positioned there between, said mounting step comprising placing said lateral liner tube within said launcher tube and placing said main liner tube on the exterior of said launcher tube, said lateral liner tube and said main liner tube being connected to one another through said launcher tube opening;

moving said launcher tube within said main line sewer pipe to a position wherein said launcher tube opening is in registered alignment with said damaged junction; and

inverting said lateral liner tube out of said launcher tube through said launcher tube opening into said lateral sewer pipe;

pressing said main liner tube radially outwardly into engagement with the interior surface of said main line sewer pipe and said lateral liner tube radially outwardly into engagement with the interior surface of said lateral sewer pipe;

permitting said resin to cure and harden whereby said main liner tube provides a full circle seal around the interior of said main sewer pipe on both sides of said damaged junction, and said lateral liner tube provides a full circle seal around the interior of said lateral sewer pipe adjacent said damaged juncture.

11. A method according to claim 10 wherein a lateral bladder tube surrounds said liner tube within said launcher tube and a main line bladder tube surrounds said launcher tube, said inverting step further comprising inverting said bladder tube through said launcher tube opening into said lateral sewer pipe whereby said lateral liner tube is outside said lateral bladder tube and in engagement with the interior of said lateral sewer pipe.

12. A method according to claim 10 wherein said pressing step further comprises radially expanding a main bladder tube located between said main liner tube and the exterior of said launcher tube to press said main liner tube radially outwardly toward said main line sewer pipe.

13. A method according to claim 10 wherein said pressing step further comprises radially expanding a lateral bladder tube located inside said lateral liner tube to press said lateral liner tube radially outwardly toward said lateral sewer pipe.

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