



MPO 7-6-98

100763106

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):
 G. Thomas Gay
 Joyce E. Gay

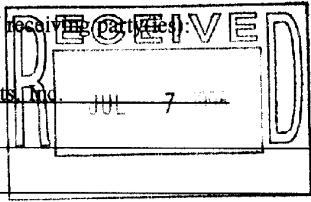
Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other - Collateral Patent and License Agreement

Execution Date: May 1, 1998

2. Name and address of recipient:
 Name: Dalen Products, Inc.
 Internal Address: _____
 Street Address: 11110 Gilbert Drive
 City: Knoxville State: Tennessee Zip: 37932-3099

Additional name(s) & address(es) attached? Yes No



4. Application number(s) or patent number(s):
 If this document is being filed together with a new application, the execution date of the application is _____

A. Patent Application No.(s)
29/046,503 29/058,875 29/082,227

Additional numbers attached? Yes No

B. Patent No.(s)
 Des. 366,191 Des. 381,098
 Des. 385,050 Des. 5,644,867

5. Name and address of party to whom correspondence concerning document should be mailed:
 Name: David N. Lawson
 Internal Address: Schiff Hardin & Waite
 Street Address: 7200 Sears Tower
233 S. Wacker Drive
 City: Chicago State: IL Zip: 60606

6. Total number of applications and registrations involved: 7

7. Total fee (37 CFR 3.41): \$280.00
 Enclosed
 Authorized to be charged to deposit account

8. Deposit account number:
19-0409

(Attach duplicate copy of this page if paying by deposit account.)

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9. Statement and signature.
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

David N. Lawson David N. Lawson July 6, 1998
 Name of Person Signing Signature Date

07/09/1998 SMITH 00000040 29046503
 01 FC:581 280.00 DP

Total number of pages comprising cover sheet: 1

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COLLATERAL PATENT AND LICENSE ASSIGNMENT

THIS COLLATERAL PATENT AND LICENSE ASSIGNMENT ("Assignment") made as of May 1, 1998, by G. Thomas Gay and Joyce E. Gay, Pennsylvania residents (the "Assignors"), with a mailing address at 1400 West 20th St., Suite 2, Erie, PA 16502, to Dalen Products, Inc., a Tennessee corporation (the "Assignee") with a mailing address at 11110 Gilbert Drive, Knoxville, TN 37932-3099.

RECITALS

Simultaneously with the execution of this Assignment, Assignee is loaning Joy Plastic Enterprises, Ltd., a Pennsylvania corporation d/b/a BackYard Products ("Joy"), the sum of \$375,000 ("Loan") evidenced by a note in that principal amount dated the date of this Assignment ("Note"). Assignors are shareholders of Joy. Dalen is not willing to make the Loan unless Assignors execute and deliver to Assignee this Assignment;

NOW, THEREFORE, in consideration of the premises set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor agrees as follows:

1. **Incorporation of Loan Agreement.** The Note and the terms and provisions thereof are hereby incorporated herein in their entirety by this reference thereto. Terms used herein which are not defined herein but are defined in the Note shall have the meanings ascribed to them therein.

2. **Collateral Assignment of Patents and Licenses.** To secure the complete and timely satisfaction of all of Joy's obligations under the Note ("Liabilities"), the Assignors hereby mortgage, pledge and assign to Assignee, as and by way of a mortgage and security interest having priority over all other security interests, with power of sale upon the occurrence of an Event of Default, and grant Assignee a security interest in, all of Assignors' right, title and interest in and to all of the following, whether now existing or hereafter arising:

(i) the patents and patent applications listed on Schedule A (attached hereto and made a part hereof) and all patents issuing from such applications, and (a) the reissues, re-examinations, divisions, continuations, renewals, extensions and continuations-in-part thereof, (b) all income, royalties, damages and payments now and hereafter due and/or payable under and with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, (c) the right to sue for past, present and future infringements thereof, and (d) all rights corresponding thereto throughout the world (all of the foregoing patents and applications, together with the items described in clauses (a) through (d), inclusive, in which Assignors now or hereafter have any right, title or interest are sometimes hereinafter individually and/or collectively referred to as the "Patents");

(ii) all Assignors' rights and obligations pursuant to its license agreements with any other person or entity with respect to any Patents, whether Assignor is a licensor or licensee under any such license agreements, including, without limitation, the licenses listed on Schedule B attached

hereto and made a part hereof (all of the foregoing are hereinafter referred to collectively as the "Licenses").

3. **Restrictions on Future Agreements.** Until the Liabilities shall have been satisfied in full and the Note shall have been terminated, Assignors will not, without Assignee's prior written consent, take any action or enter into any agreement, including, without limitation entering into any license agreement, which is inconsistent with Assignors' obligations under this Assignment, and will not take any action, or permit any action to be taken by others subject to its control, including its licensees, or fail to take any action which would affect the validity or enforcement or nature of the rights transferred to Assignee under this Assignment. Assignors shall not to sell or assign Assignors' interest in, or grant any license under, the Patents or Licenses, without receiving the prior written consent of Assignee thereto.

4. **Certain Covenants, Representations and Warranties of Assignors.** Assignors covenant, represent and warrant that: (i) the Patents and Licenses are subsisting, have not been adjudged invalid or unenforceable in whole or in part, and, to the best of Assignor's knowledge, are not currently being challenged in any way; (ii) none of the Patents and Licenses have lapsed or expired or have been abandoned, whether due to any failure to pay any maintenance or other fees or make any filing or otherwise; (iii) each of the Patents and Licenses is valid and enforceable and Assignors are unaware of any invalidating prior art (including public uses and sales) relative to the Patents, and is unaware of any impairments to the Patents or Licenses which would have a material adverse effect on the validity and/or enforceability of the Patents or Licenses; (iv) to the best of Assignor's knowledge, no claim has been made that the use of any of the Patents or Licenses constitutes an infringement; (v) as reflected in Schedule A, Assignors owns the entire right, title and interest in and to each of the Patents free and clear of any Liens and encumbrances of every kind and nature, and the Licenses are valid and subsisting licenses with respect to the Patents described therein, free and clear of any Liens and encumbrances of every kind and nature arising by, through or under Assignor, in each case except for (A) rights granted by Assignor pursuant to the applicable licenses listed on Schedule B, and (B) Liens and encumbrances in favor of Assignee pursuant to this Assignment; (vi) Assignors have the unqualified right to enter into this Assignment and perform its terms; and (vii) Assignors will continue to use proper statutory notice in connection with its use of the Patents.

5. **New Patents and Licenses.** If, before the Liabilities shall have been satisfied in full and the Note shall have been terminated, Assignors shall (i) obtain rights to any new patentable improvements, enhancements or developments (collectively, "Improvements") relating to the Patents or (ii) become entitled to the benefit of any patent application, license or license renewal, or patent for any reissue, re-examination, division, continuation, renewal, extension, or continuation-in-part of any Patent or any Improvement on any Patent, the provisions of Section 2 above shall automatically apply thereto and Assignors shall give to Assignee prompt written notice thereof. Assignors hereby authorize Assignee to modify this Assignment by noting any future acquired Patents on Schedule A and any Licenses on Schedule B, as applicable; provided, however, that the

failure of Assignee to make any such notation shall not limit or affect the obligations of Assignors or rights of Assignee hereunder.

6. **Royalties; Terms.** Assignor hereby agrees that the use by Assignee of all Patents, and Licenses as described above shall be worldwide and without any liability for royalties or other related charges from Assignee to Assignors. The term of the assignments granted herein shall extend until the earlier of (i) the expiration of each of the respective Patents and Licenses assigned hereunder, or (ii) satisfaction in full of the Liabilities and termination of the Note.

7. **Grant of License to the Assignor.** Unless and until a Default shall have occurred and notice given as provided in the following sentence, Assignee hereby grants to Assignors (but only to the extent the same was lawfully granted to Assignee by Assignors pursuant to this Agreement) the royalty-free, exclusive, nontransferable right and license for Assignors' own benefit and account and no other to exercise Assignee's rights under the Licenses, and to make, have made, use and sell products conforming to the inventions disclosed and claimed in the Patents for Assignors' own benefit and account and for none other. Assignors shall not sell or assign Assignors' interest in, or grant any sublicense under, the license granted to Assignor in this Section 7 without the prior written consent of Assignee. From and after the occurrence of a Default and notice to such effect from the Assignee to the Assignor, Assignors license with respect to the Patents and Licenses as set forth in this Section 7 shall terminate forthwith.

8. **Termination of the Assignee's Security Interest.** This Assignment is made for collateral purposes only. Upon satisfaction in full of the Liabilities and termination of the Note, subject to any disposition thereof which may have been made by Assignee pursuant hereto, title to the Patents and Licenses shall automatically revert to Assignors. Assignee shall, at Assignors' expense, execute and deliver to Assignors all termination statements and other instruments as may be necessary or proper to terminate Assignee's security interest in, and to revert in Assignors all right, title and interest in and to, the Patents and Licenses transferred to Assignee pursuant to this Assignment, subject to any disposition thereof which may have been made by Assignee pursuant hereto. Any such termination statements and instruments shall be without recourse upon or warranty by Assignee.

9. **Duties of the Assignors.** Assignors shall have the duty to prosecute diligently any patent applications listed on Schedule A. Any expenses incurred in connection with the foregoing shall be borne by Assignors. Assignors shall not abandon any patent application or patent listed on Schedule A.

10. **Assignee's Right to Sue.** From and after the occurrence of a Default, Assignee shall have the right, but shall in no way be obligated, to bring suit in its own name to enforce the Patents and the Licenses, and any licenses thereunder, and, if Assignee shall commence any such suit, Assignors shall, at the request of Assignee, do any and all lawful acts and execute any and all proper documents required by Assignee in aid of such enforcement, and Assignors shall promptly, upon

demand, reimburse and indemnify Assignee for all costs and expenses incurred by Assignee in the exercise of its rights under this Section 10.

11. **Waivers**. No course of dealing between Assignors and Assignee, nor any failure to exercise, nor any delay in exercising, on the part of Assignee, any right, power or privilege hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

12. **Severability**. The provisions of this Assignment are severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Assignment in any jurisdiction.

13. **Modification**. This Assignment cannot be altered, amended or modified in any way, except as specifically provided in Section 5 hereof or by a writing signed by the parties hereto.

14. **Further Assurances**. Assignors shall execute and deliver to Assignee, at any time or times hereafter at the request of Assignee, all papers (including, without limitation, any as may be deemed desirable by Assignee for filing or recording with any Patent and Trademark Office, and any successor thereto) and take all such actions (including, without limitation, paying the cost of filing or recording any of the foregoing in all public offices reasonably deemed desirable by Assignee), as Assignee may request, to evidence Assignee's interest in the Patents and Licenses and enforce Assignee's rights under this Assignment.

15. **Cumulative Remedies; Power of Attorney; Effect on Loan Documents**. All of Assignee's rights and remedies with respect to the Patents and Licenses, whether established hereby or by any other agreements or by law shall be cumulative and may be exercised singularly or concurrently. Assignors hereby constitute and appoint Assignee as Assignors' true and lawful attorney-in-fact, with full power of substitution in the premises, with power at any time after the occurrence of Default, to (i) endorse Assignors' names on all applications, documents, papers and instruments determined by Assignee in its sole discretion as necessary or desirable for Assignee in the use of the Patents and Licenses, (ii) take any other actions with respect to the Patents and Licenses as Assignee deems in good faith to be in the best interest of Assignee, (iii) grant or issue any exclusive or non-exclusive license under the Patents to any person, or (iv) assign, pledge, convey or otherwise transfer title in or dispose of the Patent or Licenses to any person. Assignors hereby ratify all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney shall be irrevocable until the Liabilities shall have been satisfied in full and the Note shall have been terminated. Assignors acknowledge and agree that this Assignment is not intended to limit or restrict in any way the rights and remedies of Assignee under the Note but rather is intended to facilitate the exercise of such rights and remedies. Assignee shall have, in addition to all other rights and remedies given it by the terms of this Assignment, all rights and remedies allowed by law

and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents or Licenses may be enforced. Assignors hereby release the Assignee from any and all claims, causes of action and demands at any time arising out of or with respect to any actions taken or omitted to be taken by the Assignee under the powers of attorney granted herein.

16. **Binding Effect; Benefits.** This Assignment shall be binding upon the Assignors and their heirs and assigns and shall inure to the benefit of Assignee and its respective successors, assigns and nominees. This Assignment may be executed in one or more counterparts, and each executed counterpart shall be considered an original of this Assignment. Delivery of an executed counterpart of a signature page to this Assignment by telecopier shall be as effective as delivery of a manually executed counterpart of this Assignment.

17. **Notices.** All notices, consents, requests, instructions, approvals, and other communications provided for herein shall be validly given, made, or served if in writing and (a) sent by registered or certified mail, return receipt requested, postage prepaid, (b) if sent by courier delivery service, receipt acknowledged, fees prepaid, or (c) if transmitted by facsimile transmission to the telephone numbers set forth below and addressed to:

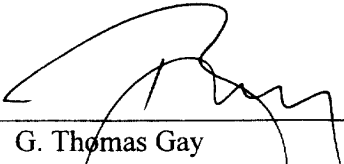
If to Assignors: 1400 West 20th St
Suite 2
Erie, PA 16502
Facsimile: (814) 453-7799
Attention: G. Thomas Gay

If to Assignee: Dalen Products, Inc.
11110 Gilbert Drive
Knoxville, TN 37932-3099
Facsimile: (423) 966-6404
Attention: President

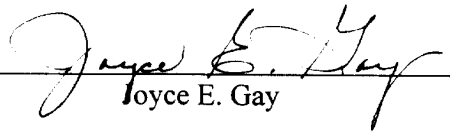
or such other address, facsimile telephone number, or person as shall be designed in writing by like notice given by any party hereto to all other parties hereto. All such notices, consents, requests, instructions, approvals, and other communications provided for herein shall be deemed to have been validly given, made, or served when deposited in the U. S. Mail or with the overnight courier delivery service or upon completion of facsimile transmission thereof.

18. **Jurisdiction and Governing Law.** This Agreement shall be governed and construed according to the internal laws of the State of Illinois without giving effect to any choice or conflict of law provision or rule that would cause the application of the laws of any jurisdiction other than the State of Illinois. Each of the Parties hereto agrees and acknowledges that each party's agreement as to the governing law is not, shall not, by itself, have the effect of a consent to the exclusive personal jurisdiction of any court sitting in the State of Illinois.

WITNESS the due execution hereof as of the date first above written.



G. Thomas Gay



Joyce E. Gay

ACCEPTANCE

The undersigned, Dalen Products, Inc., accepts the foregoing Collateral Patent and License Assignment as of the 1st day of May, 1998.

DALEN PRODUCTS, INC.

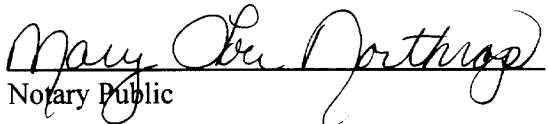
By: _____
Title: _____

STATE OF Pennsylvania
) SS.
COUNTY OF Erie

I, the undersigned, a Notary Public in and for said State and County do hereby certify that G. Thomas Gay and Joyce E. Gay, personally known to me to be the same persons whose names are subscribed to the foregoing Collateral Patent and License Assignment, appeared before me this day and acknowledged that they signed and delivered said assignment as their free and voluntary act and as the free and voluntary act and deed for the uses and purposes therein set forth.

GIVEN under my hand and official seal as of the 29 day of May, 1998.

(NOTARIAL SEAL)



Notary Public

My Commission Expires: 6/12/00

NOTARIAL SEAL
MARY LOU NORTHROP, NOTARY PUBLIC
ERIE, ERIE COUNTY, PENNSYLVANIA
MY COMMISSION EXPIRES JUNE 12, 2000

CHI2:199228.4

WITNESS the due execution hereof as of the date first above written.

G. Thomas Gay

Joyce E. Gay

ACCEPTANCE

The undersigned, Dalen Products, Inc., accepts the foregoing Collateral Patent and License Assignment as of the 1st day of May, 1998.

DALEN PRODUCTS, INC.

By: *G. P. Ayer*
Title: *President*

STATE OF Tennessee)
) SS.
COUNTY OF Knox)

I, the undersigned, a Notary Public in and for said State and County do hereby certify that Pack Owens and _____, personally known to me to be the same persons whose names are subscribed to the foregoing Collateral Patent and License Assignment, appeared before me this day and acknowledged that they signed and delivered said assignment as their free and voluntary act and as the free and voluntary act and deed for the uses and purposes therein set forth.

GIVEN under my hand and official seal as of the 27 day of May, 1998.

(NOTARIAL SEAL)

**MY COMMISSION
EXPIRES
3-27-2002**

Debra J. Fleming
Notary Public

My Commission Expires: _____

CH12:199228.4

SCHEDULE A

PATENTS AND PATENT APPLICATIONS

Country	Inventor	Owner(s)	Application or Filing Date	Serial or Patent Number	Title
U.S.	G. Thomas Gay	G. Thomas Gay and Joyce E. Gay	1/24/94	Des. 366,191	Lawn Edge
U.S.	G. Thomas Gay	G. Thomas Gay and Joyce E. Gay	1/16/95	Des. 381,098	Lawn Edge
U.S.	G. Thomas Gay	G. Thomas Gay	8/27/96	Des. 385,050	Lawn Edge
U.S.	G. Thomas Gay	G. Thomas Gay	12/23/97	29/046503	Lawn Edge
U.S.	G. Thomas Gay	G. Thomas Gay	12/23/97	29/058875	Lawn Edge
U.S.	G. Thomas Gay	G. Thomas Gay	12/23/97	29/082227	Lawn Edge
U.S.	G. Thomas Gay	G. Thomas Gay	to be filed - application attached hereto and incorporated herein as Schedule A-1	n/a	
U.S.	G. Thomas Gay	G. Thomas Gay	8/10/93	5,644,867	Planter Box

SCHEDULE A-1

-2-

EDGING

BACKGROUND OF THE INVENTION

1. **Field of the Invention** - The present invention is for lawn edging, and more particularly, pertains to a serrated tooth edging with definite and clear flat hammer targets for receiving
5 hammer blows during installation, inner fitting members and earth locking tabs which secure the edging into the ground after installation. Its design is unyielding and accommodates for maximum rigidity without hot spots.

2. **Description of the Prior Art** - Prior art has failed to provide efficient and adequate lawn edging by not supplying a combination of manageable inner fitting members, definite and
10 clear flat hammer targets for installation, and earth locking tabs which secure the edging into the ground after installation.

SUMMARY OF THE INVENTION

The general purpose of the present invention is a serrated tooth edging that is easily inserted into the ground with hammer blows to provide a permanent, reliable border for various lawn and
15 garden objectives.

According to one embodiment of the present invention, there is provided a planar body member, including interceding opposing slotted tubular members and opposing structural rib support members. The planar body member can be connected to another body member by inserting an end cylindrical member into an opposing end cylindrical member or the above mentioned slotted tubular
20 members to compose a virtually unlimited number of variations of bordered areas, ranging from large and circular to small and geometrical designs.

One significant aspect and feature of the present invention are the planar body and serrations at the lower edge which are made of reinforced CPPP (copolymer polypropylene), which when combined with the design elements, imparts needed rigidity in the vertical plane yet allows a degree of
25 flexibility in the horizontal plane, around a center bending movement. The serrations facilitate proficient entry of the edging into the earth, and intersect the slotted tubular members, the structural support members, the end slotted tubular member and the corresponding end cylindrical member. Combined with hammering forces, the CPPP serrations cut through some of the hardest clay soils, shrub roots and small tree roots.

Another significant aspect and feature of the present invention is the top edge of the planar body member that forms decorative arched edges with interceding flat hammer targets and are integrally secured to the structural support members. Each of the flat hammer targets extends downward and finishes with a sharp cutting-point for more fluency of the distribution of the hammering forces.

5 This allows for quick, easy and evenly distributed installation of any combination of manageable inner fitting members.

A further significant aspect and feature of the present invention are a plurality of opposing, three sided, angled and open earth locking tabs which secure the edging into the ground after installation.

10 The angled sides of the lower portion of the earth locking tabs facilitate entry of the edging into the earth during installation because of the nature of their angled sides. The opposing side wall pairs are perpendicular to the planar body member and intersect the angled sides, respectively, and assist in fashioning the earth locking tabs. As a result, "scoops or shovels" are formed with upward openings that, over time, fill up with soil as the earth settles in and around the edging, thus anchoring the edging

15 by providing resistance against the surrounding earth when the edging is moved upwardly especially during frost/thaw cycles.

An additional significant aspect and feature of the present invention are two holes which are incorporated into the planar body member such that they correspond to the holes of a similar edging in order that they may be placed beside each other and fastened together with opposing plastic connectors so that several edging members can be packaged together for the consumer.

20

Having thus described embodiments of the present invention, it is the principal object of the present invention to provide an easily installed, "pound-in" lawn edging that is a permanent and reliable border for various lawn and garden objectives such as dividing and identifying bulb plantings of specific varieties or colors (i.e. facilitate seasonal removal and replanting of bulbs), or to divide many varieties of herbs either in a garden or along a walkway. The versatility of the edging with its slotted tubular members and end cylindrical members compose a virtually unlimited number of variations of bordered areas, ranging from large and circular to small and geometrical designs. The unique opposing slotted tubular members feature makes it possible to build in either direction and allow for a tighter radius in circular designs.

25

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects of the present invention and many of the attendant advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings, in which like reference numerals designate like parts throughout the figures thereof and wherein:

FIG. 1 illustrates a perspective view of a serrated tooth edging, the present invention;

FIG. 2 illustrates a front view of the present invention;

FIG. 3 illustrates a rear view of the present invention;

FIG. 4 illustrates a cross-sectional view of the present invention along line 44 of

10 FIG. 2;

FIG. 5 illustrates a cross-sectional view of the present invention along line 55 of

FIG. 2;

FIG. 6 illustrates a top view of the present invention;

FIG. 7 illustrates a bottom view of the present invention;

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FIG. 8 illustrates a side view of the present invention;

FIG. 9 illustrates an additional side view of the present invention;

FIG. 10 illustrates a front view of a portion of the present invention stationed in the earth;

FIG. 11 illustrates a cross-sectional view of a portion of the present invention along line 11-11 of FIG. 10 stationed in the earth;

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FIG. 12 illustrates a top view of a plurality of the present invention where as they are joined together by utilizing the end cylindrical members and end slotted tubular members;

FIG. 13-16 illustrates a top view of various edging connectors, the first alternative embodiment;

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FIG. 17 illustrates a top view of a plurality of the present invention where as they are joined together with plastic connectors in consumer packages;

FIG. 18 illustrates a perspective view of a plastic connector

FIG. 19 illustrates a perspective view of a plastic connector

FIG. 20 illustrates a side view of two plastic connectors, in a locking position;

30

FIG. 21 illustrates a cross-sectional view of a portion of the present invention along line 21-21 of FIG. 3

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG. 1 illustrates a perspective view of a serrated tooth edging 10, herein after called edging. The edging is composed of reinforced CPPP and is centered about a planar body member 12, which is interrupted by opposing slotted tubular members 14 and 16 and by opposing structural rib support members 18, 20, 22, 24, 26 and 28. An end cylindrical member 30 having an outer diameter 32 on one end of the planar body member 12 and an end slotted tubular member 34 having an inner diameter 36 equal to or slightly less than the outer diameter 32 of the opposing end cylindrical member 30. A vertical oriented slot 38a in the end slotted tubular member 34 allows for expansion, if or as required, of the inner diameter 36 when a corresponding end cylindrical member 30 of another like edging 10 is inserted into the end luminal interior portion 44 of the end slotted tubular member 34. Similarly, slotted tubular members 14 and 16 have corresponding slots 38b and 38n and allow for expansion, if or as required, of their corresponding inner diameters 40a and 40n, if or when, a corresponding end cylindrical member 30 of another like edging 10 is inserted in perpendicular fashion into the luminal interior portions 42a and 42n. The top edge of the planar body member arches to form arched edges 46, 48 and 50 with interceding flat hammer targets 52, 54, 56 and 58 and are integrally secured to the members 18, 20, 22, 24, 26 and 28, as shown in FIG. 1. The flat hammer targets 52, 54, 56 and 58 provide a definite and clear surface for receiving hammer blows to install the edging 10 into the earth. Serrations 60, 62, 64, 66, 68, 70, 72, 74, 76 and 78 at the lower edge facilitate proficient entry of the edging 10 into the earth 150, and intersect the slotted tubular members 14, 16 and 34, the structural support members 18, 20, 22, 24, 26 and 28, the end slotted tubular member 34 and the corresponding end cylindrical member 30. Also incorporated into the planar body member 12 are a plurality of opposing, three sided, angled and open earth locking tabs 80, 82, 84, 86, 88, 89 and 90, which secure the edging 10 into the ground after installation by providing resistance against the surrounding earth when the edging 10 is moved upwardly. The angled sides 92, 94, 96, 98, 100 and 102 of the lower portion of the earth locking tabs 80, 82, 84, 86, 88 and 90 facilitate entry of the edging 10 into the earth 150 during installation. The opposing side wall pairs 104-106, 108-110, 112-114, 116-118, 120-122 and 124-126, are perpendicular to the planar body member 12 and intersect the angled sides 92, 94, 96, 98, 100 and 102, respectively, and assist in fashioning the earth locking tabs 80, 82, 84, 86, 88 and 90 with upward openings 128, 130, 132, 134, 136 and 138. Oval holes 144a and 144b accommodate the storage of consumer packages. The oval holes 144a and 144b are specifically

BYP - EDGING
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designed to allow the thick and rigid consumer packages to be placed on commercial peg hooks regardless of the angled peg hook ends.

5 FIG. 2 and 3 illustrate a front and rear view of the present invention where all the numerals correspond to those elements previously described. A planar body member 12, is interrupted by opposing slotted tubular members 14 and 16 and by opposing structural rib support members 18, 20, 22, 24, 26 and 28. The top edge of the planar body member arches to form arched edges 46, 48 and 50 with interceding flat hammer targets 52, 54, 56 and 58 and are integrally secured to the members 18, 20, 22, 24, 26 and 28, as shown in FIG. 2 and 3. The hammer targets 52, 54, 56 and 58 provide a definite and clear surface for receiving hammer blows to install the edging 10 into the earth. Serrations 60, 62, 64, 66, 68, 70, 72, 74, 76 and 78 at the lower edge facilitate proficient entry of the edging 10 into the earth 150, and intersect the slotted tubular members 14, 16 and 34, the structural support members 18, 20, 22, 24, 26 and 28, the end slotted tubular member 34 and the corresponding end cylindrical member 30. Also incorporated into the planar body member 12 are a plurality of opposing, three sided, angled and open earth locking tabs 80, 82, 84, 86, 88, 89 and 90, which secure the edging 10 into the ground after installation by providing resistance against the surrounding earth when the edging 10 is moved upwardly. In addition, two holes 140a and 140n are incorporated into the planar body member 12 such that they correspond to the holes 140a and 140b of a similar edger 10 when the anterior of one edger 10 is placed against the posterior of another. They are fastened together with opposing plastic connectors 152 and 153 so that several edging members 10 can be packaged together for the consumer.

10 FIG. 4 illustrates a cross-sectional view of a portion of the present invention along line 4-4 of FIG 2. where all the numerals correspond to those elements previously described. Incorporated into the planar body member 12 is a plurality of opposing, three sided, angled and open earth locking tabs, such as tabs 80 and 82 in FIG. 4, which secure the edging 10 into the ground after installation by providing resistance against the surrounding earth when the edging 10 is moved upwardly. The angled sides 92 and 94 of the lower portion of the earth locking tabs 80 and 82 facilitate entry of the edging 10 into the earth 150 during installation. The opposing side wall pairs 104-106 and 108-110, are perpendicular to the planar body member 12 and intersect the angled sides 92, and 94, respectively, and assist in fashioning the earth locking tabs 80 and 82, with upward openings 128 and 130, into which the earth fills the earth locking tabs 80 and 82, thus providing resistance.

FIG. 5 illustrates a cross-sectional view of the present invention along line 5-5 of FIG. 2. where all the numerals correspond to those elements previously described.

5 FIG. 6 and 7 illustrate a top and bottom view, respectively, of the present invention where all the numerals correspond to those elements previously described. FIG. 6 illustrates how the opposing slots 38a and 38n in the corresponding, opposing slotted tubular members 14 and 16, open and close, respectively, to allow a tighter minimum radius to be formed in the event that the edging 10, is bent to a substantial degree in order to attain a circular configuration. Depending on which way the edging 10 is bent, slot 38a will close and the opposing slot 38n will open, the extent to which is only limited to the flexibility of the CPPP material.

10 FIG. 8 and 9 illustrate side views of the present invention where all the numerals correspond to those elements previously described.

MODE OF OPERATION

FIG. 10, 11 and 12 best illustrate the mode of operation of the present invention where all the numerals correspond to those elements previously described. FIG. 10 illustrates a front view of a portion of edging 10 stationed in the earth 150. Installation into the earth 150, is accomplished by distributing alternating hammer blows upon the interceding flat hammer targets 52 and 54 of the edging portion shown and to corresponding hammer targets in prior illustrations, to cause the edging member 10 to penetrate the earth 150. Serrations 60, 62, 64, 66 and 68 at the lower edge of the edging 10 facilitate proficient entry of the edging 10 into the earth 150. FIG. 11 illustrates a cross-sectional view of a portion of the present invention along line 11-11 of FIG. 10 stationed in the earth 150 and best illustrates the function of the opposing, three sided, angled and open earth locking tabs 80, 82, 84, 86, 88, 89 and 90, which secure the edging 10 into the ground after installation. The lower portion of the earth locking tab 82 facilitates entry of the edging 10 into the earth 150 during installation because of the nature of its angled side 94. The side wall 108 and the corresponding side wall 110 as depicted in FIG. 10 are perpendicular to the planar body member 12 and intersect the angled side 94 to fashion an earth locking tab 82. As a result a "scoop or shovel" is formed with an upward opening 130 that, over time, fills up with soil as the earth 150 settles in and around the edging 10, thus anchoring the edging 10 by providing resistance against the surrounding earth 150, when the edging is moved upwardly, especially during frost/thaw cycles. FIG. 12 illustrates a top view of a plurality of edging 10,

including portions of edging 10a, 10b and 10c, where as they are joined together by utilizing the end cylindrical members 30 of edging 10a and 10c, the end slotted tubular member 34 of edging 10b and the slotted tubular member 16 of edging 10a. As described in FIG. 10, a piece of the edging 10, here depicted as edging 10a, is hammered into the earth. Then the end luminal interior portion 44 of end slotted tubular member 34 of edging 10b is aligned with the end cylindrical member 30 of edging 10a and slid downwardly until striking the earth. Then subsequent alternating hammer blows are distributed upon the interceding flat hammer targets 52 and 54 and other corresponding flat hammer targets of edging 10b until the top of the arched edge 46 and other corresponding arched edges of edging 10b is the same level of the top of the arched edges 48 and 50 and other corresponding arched edges of edging 10a. Similarly, edging 10c is placed perpendicular to edging 10a such that the end cylindrical member 30 of edging 10c is aligned with the luminal interior portion 42n of the slotted tubular member 16 of edging 10a and slid downwardly until striking the earth. Then subsequent alternating hammer blows are distributed upon the corresponding flat hammer targets of edging 10c until the top of the arched edge 50 and other corresponding arched edges of edging 10c is the same level of the top of the arched edges 48 and 50 and other corresponding arched edges of edging 10a. The unique opposing slotted tubular members 14 and 16 make it possible to build on either side of the edging 10 and allow for a tighter radius in circular designs.

FIG. 13-16 illustrate a top view of various edging connectors, the first alternative embodiment. The connectors illustrated in FIG. 13-16 are of a finite length and are used to secure two or more sections of edging in various configurations, and allow for more flexibility in installation of the aforementioned edging.

FIG. 17 illustrates a top view of a plurality of the present invention where as they are joined together with opposing plastic connectors 152 and 153 in consumer packages where all the numerals correspond to those elements previously described. Two holes 140a and 140n are incorporated into the planar body member 12 such that they correspond to the holes 140a and 140b of a similar edger 10 when the anterior of one edger 10 is placed against the posterior of another. They are fastened together with opposing plastic connectors 152 and 153 so that several edging members 10 can be packaged together for the consumer. The packages may be different lengths composed of 10, 20 and 40 inch segments.

FIG. 18 and 19 illustrate perspective views of opposing plastic connectors 152 and 153. FIG. 18 illustrates stable plastic connector 152 with a six sided connector head 156, a plastic washer 166

and across peg 168, and a three-dimensional T shaped hard plastic body 154 that extends downward and finishes with a two dimensional and beveled tip 160. It is interrupted by ratchet fasteners 162 and a weak spot 164. FIG. 19 illustrates working plastic connector 153 with a six sided connector head 156; incorporating a flathead groove 158, a thumb screw 170 and a three-dimensional T shaped hard plastic body 154 that extends downward and finishes with a two dimensional and beveled tip 160. It is interrupted by ratchet fasteners 162 and a weak spot 164.

FIG. 20 illustrates a side view and best illustrates the mode of operation of the opposing plastic connectors 152 and 153, where all the numerals correspond to those elements previously described. The two opposing plastic connectors 152 and 153 are fastened when the ratchet fasteners 162 of the stable plastic connector 152 engages and locks into the ratchet fasteners 162 of the opposing working plastic connector 153, when they are driven toward each other, after they are placed in a sequence of the respective holes, either 140a or 140n as seen in FIG. 17. The cross pin 168 of stable plastic connector 152 goes into the corresponding grooves 141 as seen in FIG. 21 to lock it into place. Then, to use the edging 10, place a flat head screwdriver in the flathead groove 158 of the working plastic connector 153, or use the thumbscrew, and twist. The cross pin 168 of stable plastic connector 152 fit into the corresponding grooves 141 in the boss of hole 140a and prevent any rotation of stable plastic connector 152. The weak point 164 will break and the plastic connectors 152 and 153 will come apart. The plastic washer 166 on stable plastic connector 152 is to hold the waterproof label flat against the consumer packaged edging 10.

FIG. 21 illustrates a cross-sectional view of a portion of the present invention along line 21-21 of FIG. 3 and best illustrates the function of the upper extended rim 142 and the lower extended rim 143 of the holes 140a and 140n. When the edging member 10 is placed beside similar edging member 10, the upper extended rim 142 of the first edging member 10 fits into the corresponding lower extended rim 143 of the corresponding edging member 10. Then additional corresponding edging members 10 are placed in sequence such that all the upper extended rims 141 match the corresponding lower extended rims 142. The corresponding rims 142 and 143 prevent the edging members 10 from maneuvering out of position in the commercial packaging.

Various modifications can be made to the present invention without departing from the apparent scope hereof.

IT IS CLAIMED:

1. A lawn edging comprising:
 - 5 a. an elongated body member with a radial end and a slotted end; and
 - b. a hole adjacent each end at a midpoint of each end.
2. The lawn edging of claim 1, wherein opposing spaced slots on each side of said body member.
- 10 3. The lawn edging of claim 1, wherein outwardly extending reinforcing ribs on each side between each of said opposing slots, and said opposing slots and said ends.

EDGING

ABSTRACT OF THE DISCLOSURE

15 A segmented, hammered-in lawn edging having a serrated edge, flat hammer targets that will sustain repeated hammer blows during installation and a plurality of opposing, three sided, angled and open earth locking tabs which secure the edging into the ground after installation. The inner fitting members of the edging may be used for separation of herb gardens, flower beds and the like. The edging limits the spreading of plant growth and/or divides colors or types of flowers in a flower bed. Various connectors may be used to create a walkway or other patterned growing areas.

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EDGING

PARTS LIST

10	serrated tooth edging		
12	planar body member	60	serration
		62	serration
14	slotted tubular member	64	serration
16	slotted tubular member	66	serration
		68	serration
18	rib support member	70	serration
20	rib support member	72	serration
22	rib support member	74	serration
24	rib support member	76	serration
26	rib support member	78	serration
28	rib support member		
30	end cylindrical member	80	locking tabs
32	outer diameter	82	locking tabs
		84	locking tabs
34	end slotted tubular member	86	locking tabs
36	inner diameter	88	locking tabs
		90	locking tabs
38a-n	slots		
		92	angled sides
40a, n	inner diameters	94	angled sides
		96	angled sides
42a, n	luminal interior portions	98	angled sides
44	end luminal interior portion	100	angled sides
		102	angled sides
46	arched edges		
48	arched edges	104	side walls
50	arched edges	106	side walls
		108	side walls
52	flat hammer target	110	side walls
54	flat hammer target	112	side walls
56	flat hammer target	114	side walls
58	flat hammer target	116	side walls
		118	side walls
		120	side walls
		122	side walls
		124	side walls
		126	side walls

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128	upward openings
130	upward openings
132	upward openings
134	upward openings
136	upward openings
138	upward openings
140a	hole
140n	hole
141	grooves
142	upper extended rim
143	lower extended rim
144a	oval hole
144b	oval hole
150	earth
152	stable plastic connector
153	working plastic connector
154	connector body
156	connector head
158	flathead groove
160	connector tip
162	ratchet fasteners
164	weak spot
166	plastic washer
168	cross peg
170	thumb screw

SCHEDULE B

LICENSES

Oral licenses, terminable at will, with Nu-Tek Plastics Co., a Pennsylvania corporation, and Joy Plastic Enterprises, Inc., a Pennsylvania corporation.

Assignment of royalties, terminable at will, from patents and applications therefor listed in Schedule A, to Seasonal Products Company, a Delaware corporation.