

MARINO SERNA DUQUE

Abogado

Señor

SUPERINTENDENTE DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES

E.

S.

D.

2070

INDUSTRIA Y COMERCIO
Radicación: 01024129 00000001
Fecha (AMD): 2001-10-10 14:59:38
Trámite: 002 PATENTES D 1 REGISTRADO/ 538 PETICION
Dependencia: 2000 DIVISION DE NUEVAS CREACIONES
Folios: 2

REF.: EXPEDIENTE No. 2001-24129

ASUNTO: SOLICITUD DE PATENTE DE INVENCION

INVENTO: "MÁQUINA PARA EXTRAER PLANTAS POR ARRANQUE"

RECIBO DE PAGO - PAGO DE TASA

MARINO SERNA DUQUE, Abogado, identificado con la Tarjeta Profesional No. 18624 del Consejo Superior de la Judicatura, obrando como Apoderado en el asunto enunciado en el epígrafe, atentamente presento a su Despacho el recibo de pago No. 64.522, por concepto del examen de patentabilidad de la solicitud de la invención de la referencia, y por la suma de \$300.000,00, de acuerdo con La Decisión 486 del Régimen de la Comunidad Andina de Naciones.

Sírvase señor Superintendente, continuar con el trámite normal de la solicitud, ya que el extracto de la misma fue publicado en La Gaceta de La Propiedad Industrial.

Señor Superintendente,


MARINO SERNA DUQUE
T.P. 18.624 del C.S. de la J.
C.C. 19.050.908 de Bogotá

Folios: 2



Industria y Comercio

SUPERINTENDENCIA

NIT : B00176089-2

SUPERINDUSTRIA Y COMERCIO
 Radicación : 01024129 000000001
 Fecha (AMD) : 2001-10-10 14:59:38
 Trámite : 002 PATENTES D 1 REGISTRO/ 538 PETICION
 Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

Folios: 2

RECIBO DE TAL DE CAJA : 01 - 64,522
 FECHA : OCTUBRE 10 DE 2001

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
MARINO SERNA DUQUE	CONSIGNACION	BANCO POPULAR	050-00110-6	7163639	10/10/2001	300,000.00

***** C O N C E P T O *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		PATENTABILIDAD DE INVEN	300,000.00
		TOTAL :	\$ 300,000.00

SON: CINCUENTA MIL PESOS

RESPONSABLE: _____

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

Carrera 13 No. 27-00 Pisos 5, 7 y 10
 Conmutador 382 0840
 Fax 350 5220
 E-mail: info@sic.gov.co
 www.sic.gov.co
 Bogotá, D.C., Colombia

1968-000

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DATE	REF	TYPE	STATUS	REMARKS
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1968-000	1968-000	1968-000	1968-000	1968-000
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DIVISION DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No . 01-024129

EL EXTRACTO DE LA PRESENTE SOLICITUD DE **PATENTE DE INVENCION**

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **506** DE

FECHA **30 DE JULIO 2001** EL TERMINO HABIL SEÑALADO POR LA LEY

EXPIRA EL **25 DE OCTUBRE DEL 2001**

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____ NO X _____

Bogotá D.C, AGOSTO DE 2007

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23

**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES**

2020

Bogotá, D.C., 24 de agosto de 2007

Abogado

Marino Serna D.

(Apoderado)

Solicitante: Hernando Vanegas

ASUNTO	Radicación	01 – 24 129
	Trámite	002
	Evento	001
	Actuación	430
	Oficio	10299
	Folios	010

Como resultado del examen de fondo, realizado con fundamento en el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados

- 1.1. Descripción: Folios: 5 a 7 como se radicó inicialmente
- 1.2. Reivindicaciones: 1 a 9, folios 8 y 9 como se radicó inicialmente
- 1.3. Dibujos: Folios 11 a 17 como se radicó inicialmente

2. Objeto de la invención

- Título de la solicitud: *Máquina para extraer plantas por arranque*, folio 1.
- El objeto de la presente solicitud de patente de invención consiste en proporcionar una máquina para extraer plantas del suelo mediante el agarre del tallo con una pinza activada a distancia. Para la operación, la máquina agarra el tallo y el operario hace pivotar la pinza, de tal manera que se aleja del suelo y se produce el arranque de la planta gracias a la palanca ejercida por el aparato.

Reivindicaciones 1 a 8: Una máquina manual para arrancar plantas de raíz, que comprende una estructura, tubular y metálica, de soporte; un manubrio de accionamiento y movilidad de la máquina; un dispositivo de sujeción y arranque de las plantas; y, unos elementos para el rodaje de la máquina

Reivindicación 9: método manual para sujetar y arrancar de raíz plantas y vegetales de tallo, que consiste en: proveer una máquina como la definida arriba; ubicarla en proximidad de la planta; operar el dispositivo de sujeción para agarrar el tallo de la planta; e, inclinar la estructura tubular de soporte hasta arrancar la planta.

El problema planteado en esta solicitud es la necesidad de arrancar manualmente plantas sin realizar grandes esfuerzos.

Para solucionar este problema técnico la solicitud en estudio proporciona una máquina que se puede desplazar por el campo gracias a unas ruedas y que puede agarrar el tallo de las plantas gracias a unas pinzas que se operan por medio de una guaya o cable metálico que se activa mediante una palanca que se encuentra sobre el manubrio de la máquina y que tiene un soporte escalonado para regular el tamaño de la abertura de las pinzas.

- Clasificación Internacional de Patentes (IPC): A01D 11/02

3. De la solicitud de Patente

3.1. Descripción (artículo 28 D. 486)

- El solicitante debe:
 - (1) Presentar un nuevo capítulo descriptivo, incluyendo, si es el caso, un nuevo juego -completo- de dibujos, con las correcciones necesarias.
 - (2) Suprimir el espacio en blanco que hay después de la expresión *fijación* en la página 1, folio 5, porque es inconducente.
 - (3) Sustituir la expresión *desliece* que aparece en la página 1, folio 5, *despiece* u otra expresión que se ajuste mejor al contexto.
 - (4) Sustituir la expresión *tabular* que aparece dos veces en la página 2, folio 6, por *tubular* u otra expresión que se ajuste mejor al contexto.
 - (5) Corregir las figuras, suprimiendo los letreros diferentes a los que designen la figura correspondiente, no se admite la expresión *plancha* para designar las figuras porque dentro del texto de la descripción se mencionan *figuras* no *planchas*.
 - (6) Ilustrar lo referente a los *peldaños* que se mencionan en las páginas 2 y 3, folios 6 y 7 [y en la reivindicación 4, folio 8], porque se señala únicamente un peldaño -con el número 20- en la figura 3, folio 13.
 - (7) Aclarar las expresiones *extremo del telescópico* y *con su imagen homóloga* que aparecen en la página 2, folio 6, porque su significado es oscuro.
- La descripción no cumple con el requisito de claridad o completitud de acuerdo al art. 28 de la Decisión 486.

3.2. Reivindicaciones (artículo 30 D 486)

- El solicitante debe:
 - 1) Presentar un nuevo capítulo reivindicatorio donde se realicen las correcciones exigidas aquí.
 - 2) Suprimir la mención de la reivindicación 1 en las reivindicaciones 4, 7 y 8, porque lo que allí se reclama no corresponde a lo definido en la reivindicación 1.
 - 3) Modificar la reivindicación 9, folio 9, en el sentido de reclamar un método, porque lo que allí se define no corresponde a las características de una máquina -la cual se debe definir por los componentes o elementos que la constituyen, no por las funciones que realice-. Se le sugiere al solicitante que estudie lo que se dice al respecto en el punto 2., arriba, sobre el objeto de la invención.
- El capítulo reivindicatorio no cumple con el requisito de claridad, concisión o sustento por la descripción de acuerdo al art. 30 de la Decisión 486.

25 25

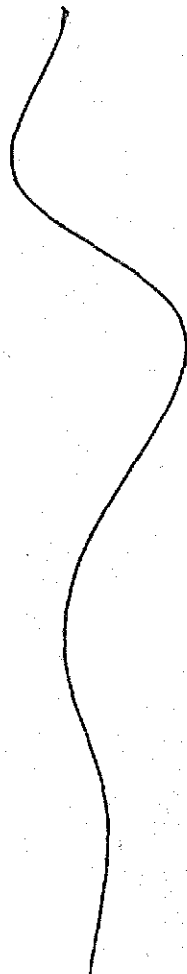
4. Determinación del Estado de la Técnica

Dado que la fecha de presentación de la primera solicitud de patente fue el 01-03-27, se buscaron documentos del estado de la técnica relacionados, con fecha de publicación anterior.

Nº	Documento	Título	Fecha de publicación
D1	Patente US 1 288 223, cuyo inventor es John R. Schmitt	'Beet puller' (Un arrancador de remolachas)	1918-12-17
D2	Patente DE 562 854, cuyo inventor es Heinrich Clever	'Als Zange ausgebildeter Handrübenheber' (Tenazas manuales para arrancar zanahoria)	1932-10-13
D3	Patente US 3 310 121, cuyo inventor es Joseph P. Hussar	'Combination root cutter and plant puller' (Una combinación de cortador de raíz y arrancador de plantas)	1964-07-13

Se anexa la copia de las páginas pertinentes de estos documentos.

NOTA: No se realizó una evaluación de los demás requisitos de patentabilidad, porque se objetó la claridad de las reivindicaciones. Una vez hayan sido superadas las objeciones establecidas en este Concepto Técnico, se podrán hacer los exámenes correspondientes



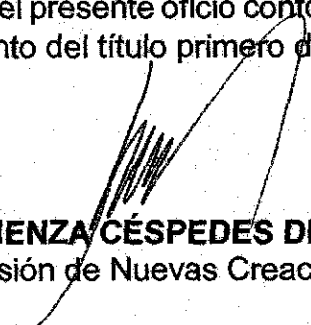
26-8-26

5. Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados por la falta de claridad de la descripción y las reivindicaciones.

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única N° 10 de 2001.


ALIX CARMENZA CÉSPEDES DE VERGEL
Jefe de División de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista, de fecha 30 AGO. 2007

CONCEPTO TÉCNICO n.º 1403	EXAMINADOR TÉCNICO Código n.º 202009
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UNITED STATES PATENT OFFICE.

JOHN R. SCHMITT, OF McHENRY, ILLINOIS.

BEET-PULLER.

1,288,223.

Specification of Letters Patent.

Patented Dec. 17, 1918.

Application filed January 15, 1918. Serial No. 211,968.

To all whom it may concern:

Be it known that I, JOHN R. SCHMITT, a citizen of the United States, residing at McHenry, in the county of McHenry, and State of Illinois, have invented certain new and useful Improvements in Beet-Pullers, of which the following is a specification.

This invention relates to beet pullers and has for its object the production of a simple and efficient beet puller which will conveniently and efficiently grip the beet and facilitate the removal thereof, from the ground.

Another object of this invention is the production of a simple and efficient beet puller which is used as a hand implement and which is mounted upon a plurality of supporting wheels for the purpose of facilitating the moving of the gripping arms in engagement with the beet for the purpose of removing the same from the ground.

With these and other objects in view this invention consists of certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the drawings:

Figure 1 is a side elevation of the beet puller,

Fig. 2 is a top plan view thereof.

By referring to the drawings, it will be seen that 1 designates the supporting wheels, the supporting wheels supporting a flat axle 2, upon which axle 2 is pivotally mounted a pair of beet gripping or pulling arms 3, by means of the pivot pins 4.

A gripping jaw 5 is pivotally secured to the outer end of each arm 3 by means of a pivot pin 6 as shown in Fig. 2 and each gripping jaw 5 comprises a substantially concavo-convex body having a plurality of gripping calks 7 formed upon the inner face thereof. The respective gripping jaws 5 of each arm 3 are arranged in opposed relation as shown in Fig. 2 of the drawings, and the inner ends of these arms 3 are normally held in close relation by means of a coil spring 8. It of course should be understood that these arms 3 may be spread apart at their outer end for the purpose of facilitating the lifting of a beet when it is so desired by means of the operator forcing the inner end or handle 9 of the arms 3 toward each other. It of course should be understood that the wheels 1 will facilitate the movement of the arms 3 into proper engagement with a beet

shown in dotted lines in Fig. 1 and as the jaws or gripping plate 5 are forced downwardly into engagement with the beet, the same may be firmly forced in engagement with the body of the beet by means of the spring 8. The operator may then press downwardly upon the handles or grips 9 and draw the beet out of engagement with the ground.

From the foregoing description it will be seen that a very simple and efficient beet gripping or pulling device has been produced which comprises a minimum number of parts and which may be very cheaply manufactured. By considering Fig. 2 it will be seen that the supporting axle 2 comprises a substantially flat body upon which the arms 3 are pivotally secured for the purpose of efficiently bracing the pivot pin 4 and relieving considerable strain from the pivot pin 4 as would be the case if the axle were round. The broad flat surface of the axle 2 constitutes an efficient bearing as above stated.

It of course should be understood that certain detail mechanical changes may be made in the present device without departing from the spirit of the invention, so long as these changes fall within the scope of the appended claim.

By considering Fig. 1, it will be seen that the handles 3 are provided with upwardly extending or inclined handle portions 3' for the purpose of raising the upper end of a handle 3 to a proper position to be engaged by means of the hands of the operator.

What is claimed is:

A beet puller comprising a plurality of supporting wheels, a comparatively flat axle secured to said wheels, a pair of pulling arms pivotally mounted upon said flat axle and extending rearwardly therefrom, said pulling arms provided with forwardly extending ends, a spring interposed between said forwardly extending ends for normally urging the same together, pivotally mounted beet gripping jaws secured to the outer ends of said pulling arms, each jaw being slightly curved and provided with a plurality of beet gripping calks formed upon the inner face thereof for firmly gripping a beet and facilitating the pulley thereof from the ground as said pulling arms are swung upwardly, said axle being mounted upon said wheels for permitting the upward swinging of said

28-28

J. R. SCHMITT.
BEET PULLER.
APPLICATION FILED JAN. 15, 1918.

1,288,223.

Patented Dec. 17, 1918.

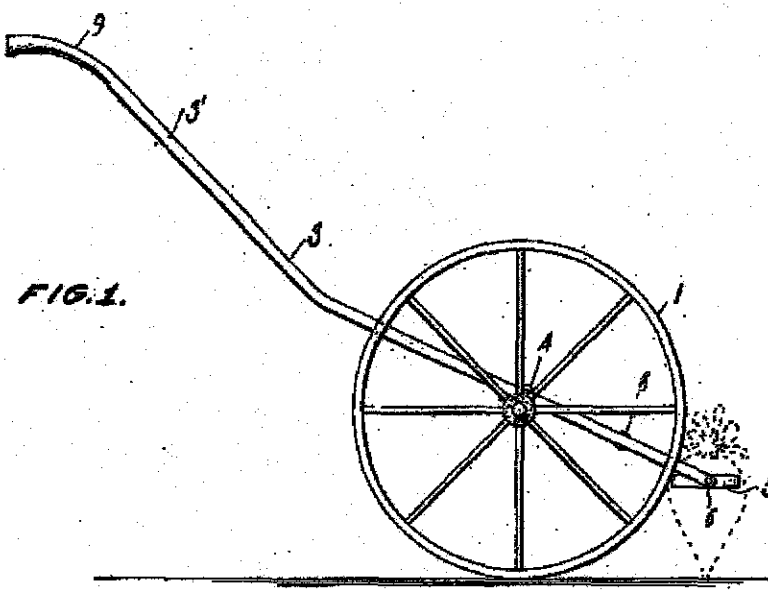


FIG. 1.

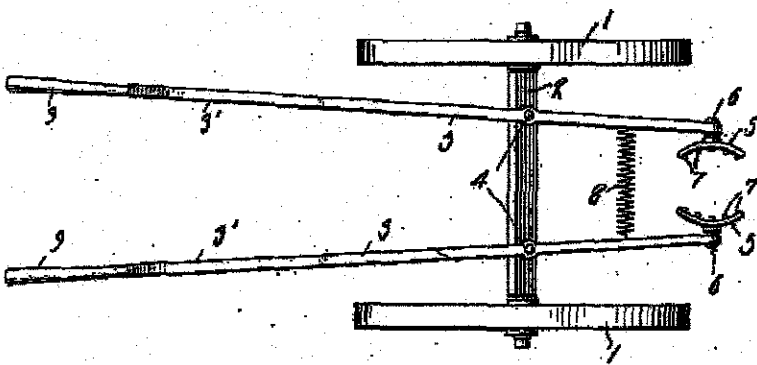


FIG. 2.

INVENTOR
John R. Schmitt

WITNESSES
W. C. Thelding
Irving F. D. Cathman

BY *Richard L. Owen*
ATTORNEY

DEUTSCHES REICH



AUSGEGEBEN AM
29. OKTOBER 1932

REICHSPATENTAMT
PATENTSCHRIFT

№ 562854

KLASSE 45c GRUPPE 5

C 45546 III/45c¹

Tag der Bekanntmachung über die Erteilung des Patents: 13. Oktober 1932

Heinrich Clever in Schleiden, Kr. Jülich, Rhld.

Als Zange ausgebildeter Handrückenheber

30 30

Zu der Patentschrift 562854
Kl. 45c Gr. 5

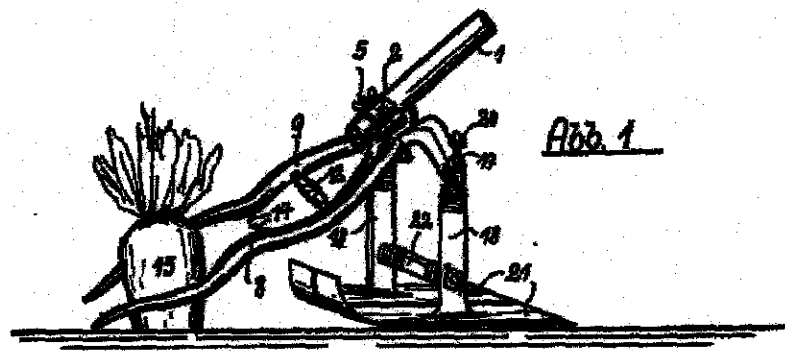


Abb. 1

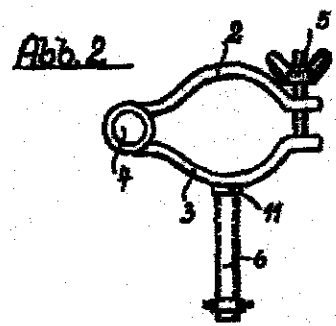


Abb. 2

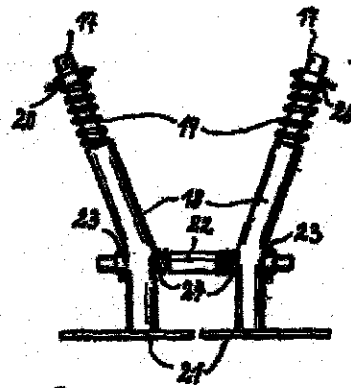


Abb. 3

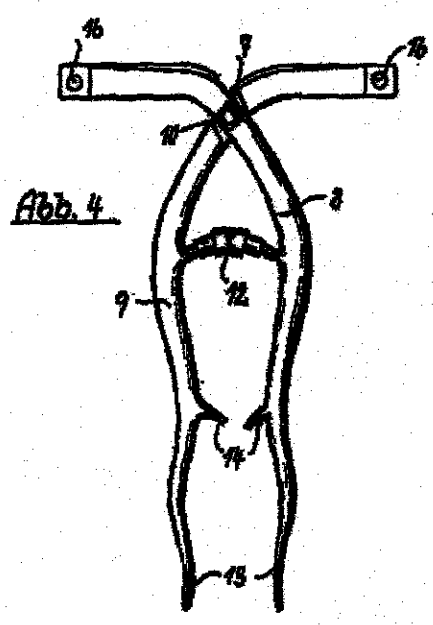


Abb. 4

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March 21, 1967

J. P. HUSSAR

3,310,121

COMBINATION ROOT CUTTER AND PLANT PULLER

Filed July 13, 1964

FIG. 1.

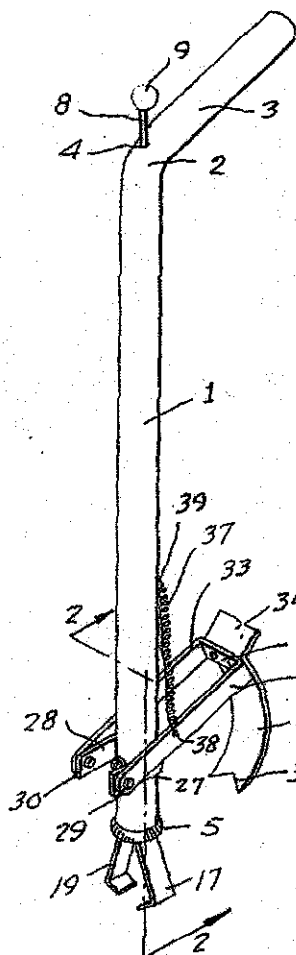


FIG. 2.

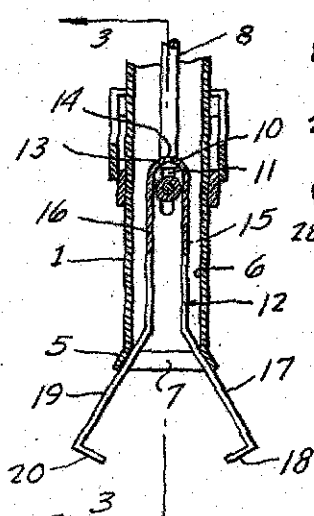


FIG. 3.

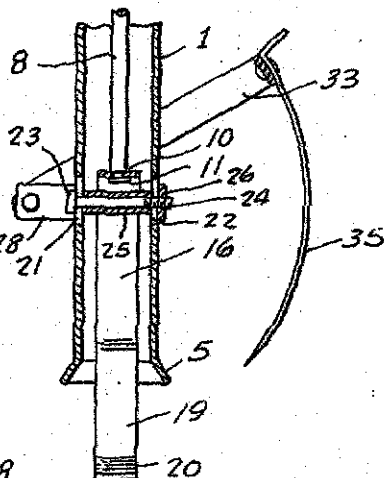


FIG. 5.

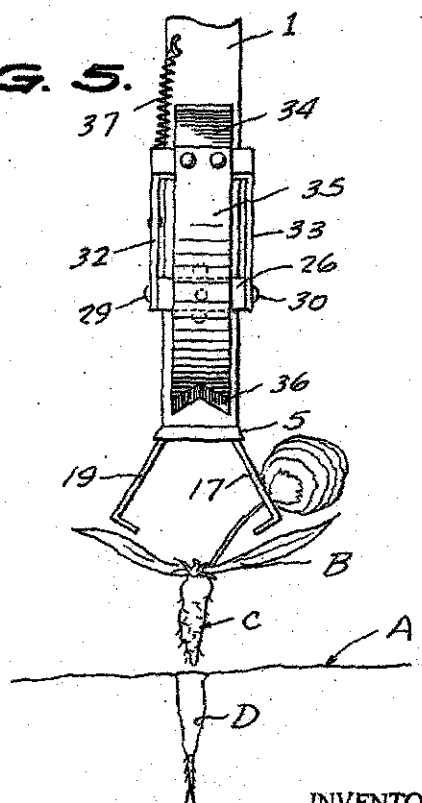
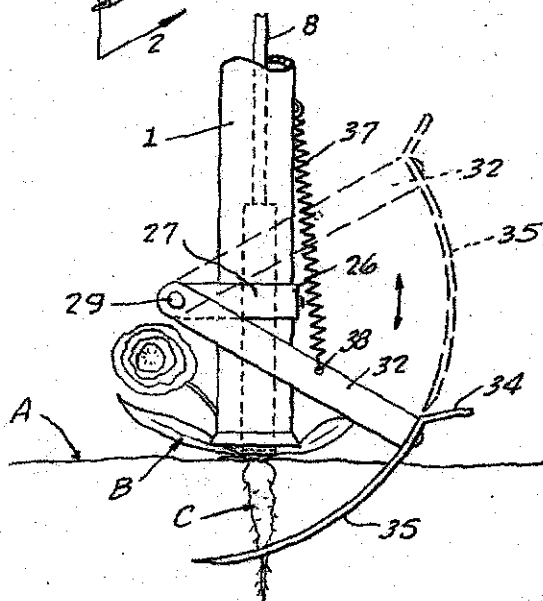


FIG. 4.



INVENTOR.

JOSEPH P. HUSSAR,

BY

Linton and Linton

ATTORNEYS.

United States Patent Office

3,310,121

Patented Mar. 21, 1967

1

3,310,121

COMBINATION ROOT CUTTER AND PLANT PULLER

Joseph P. Hussar, 74 Federal St.,

Weymouth, Mass. 02188

Filed July 13, 1964, Ser. No. 381,972

3 Claims. (Cl. 171-62)

The present invention is concerned with a combination root cutter and plant puller.

The principal object of the present invention is to provide a device which can be carried by one hand of the user and without the user bending over can grasp a small growth such as a plant, weed or the like, close to the ground, sever the root of growth, and the user can then pull the growth including the attached severed root from the ground leaving only a small opening in the ground and the withdrawn growth can be quickly and easily discharged into a suitable container.

A further and important object of the invention is to provide a combination root cutter and small growth puller which can be easily directed towards a plant or the like and by a simple downward movement of the device it will grasp one of various sized plants at the surface of the ground and the user can then, while grasping the plant, cut the root thereof underground by the use of one foot and then withdraw the plant with attached root from the ground without damaging surrounding growths such as other plants, grass or the like.

Another important object of the invention is to provide a root cutter and small growth puller having an elongated handle which can be held vertically to grasp the stalk of a growth and having a root cutter attached to said handle which can be operated to horizontally cut the root of the growth underground and then be withdrawn from the ground whereupon a vertical movement of the handle will withdraw the growth and attached root from the ground to leave a minimum size opening in the ground.

An equally important object of the invention is to provide a plant puller which automatically grasps the plant by placing the plant puller over the plant.

Further objects of the invention will be in part pointed out and in part obvious from the following description of the accompanying drawing in which:

FIG. 1 is a perspective view of the present root cutter and growth puller in position for use.

FIG. 2 is an enlarged cross-sectional view taken on line 2-2 of FIG. 1.

FIG. 3 is a cross-sectional view taken on line 3-3 of FIG. 2.

FIG. 4 is an enlarged side elevation of the lower portion of the present device when grasping a plant and cutting the root thereof.

And FIG. 5 is a further side elevation of the lower end portion of the present device taken at right angles to FIG. 4 and with the device when releasing the plant and root after pulling the same from the ground.

Referring now more particularly to the drawings, wherein like and corresponding parts are designated by similar reference characters, numeral 1 indicates an elongated tubular shaft having an upper bend 2 from which extends the upper free end portion providing a handle 3. An opening 4 is provided in the top of said bend 2 which is open to the bore 6 of said shaft. The opposite end of said shaft has an outwardly flared end portion 5 which includes the annular outwardly flared wall 7 defining the lower end of bore 6.

An elongated rod 8 extends through opening 4 and through bore 6 and has a knob 9 fixedly mounted on the end of said rod exteriorly of bend 2. The opposite end portion 10 of said rod has a reduced diameter and

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mates with opening 13 in semi-circular base 14 of the pinchers generally designated by numeral 12. End 10 is riveted at 11 so that base 14 is fixedly held between said end 11 and the shoulder provided by the difference in diameter of end portion 10 and the remainder of rod 8.

Pincher 12 is formed of one piece of resilient material such as spring steel or a plastic and besides semi-circular base 14 has a pair of straight legs 14 and 16 each integral with an end of said base providing an inverted U-shaped appearance to said base and legs. Leg 15 has a laterally slanting straight portion 17 and a jaw 18 extending inwardly and normal to portion 17. Similarly leg 16 has a laterally slanting straight portion 19 and inwardly extending jaw 20 normal to portion 19.

Shaft 1 has a pair of diametrically opposite slots 21 and 22 extending longitudinally of said shaft. A bolt 23 having a head larger than one of said slots extends through said slots and a tube 25 extending across the interior of said shaft between legs 15 and 16 and said bolt has a threaded end 24.

A U-shaped band has bolt end 24 extending through and in threaded engagement with the base 26 thereof while said base partially encircles shaft 1 and has straight legs 27 and 28 extending beyond said shaft.

Riveted pins 29 and 30 extend through legs 27 and 28 respectively and through one end of legs 32 and 33 respectively of a U-shaped pedal having a base 31 joining legs 32 and 33 at their opposite ends.

An arcuate root cutter 35 is fixedly connected to base 31 by conventional means such as rivets, screws or the like and has an angular end portion 34 extending laterally of said base 31 while the opposite end portion 36 has a sharpened inverted V-configuration.

A coil spring 37 is connected to shaft 1 at one end by conventional means such as a rivet, screw or the like while its opposite end extends through an opening 38 in the medial portion of leg 32.

In the use of the present device a user grips handle 3 and while holding shaft 1 vertically places jaws 18 and 20 on the ground A each on an opposite side of the stalk of a growth B and pushes shaft towards the ground while still holding said shaft vertically. Since jaws 18 and 20 are moved together gripping the plant stalk, but remaining spaced apart so as not to sever the stalk. A spacing apart of jaws 18 and 20, of approximately $\frac{3}{8}$ of an inch even when leg portions 17 and 19 are fully within bore 6 enable jaws 18 and 20 to hold almost all small growths. Extra heavy growths will prevent said jaws from closing to their full gap unless compensating extra pressure is applied to handle 3.

While jaws 18 and 20 are gripping the plant B and shaft 1 is vertical, the user applies one foot to the end portion 34 of the cutter and pushes the cutter 35 into the ground A until end 36 severs the plant root C. Legs 32 and 33 will thus pivot about pins 29 and 30 giving cutter 35 an arcuate movement with end 36 being substantially horizontal when it reaches root C.

The root cutting movement of cutter 35 extends spring 37 so that after severance of the root and release of end portion 34 by the user's foot, said spring will return cutter 35 from the ground to the position shown in FIG. 1. Thereupon an upward movement by the user on handle 3 will draw the root C from the ground leaving only a small hole D in the ground.

A push on knob 9 moving rod 8 downwardly will move leg portions 17 and 19 from bore 6 and the resiliency of the gripper will move jaws 18 and 20 apart releasing

