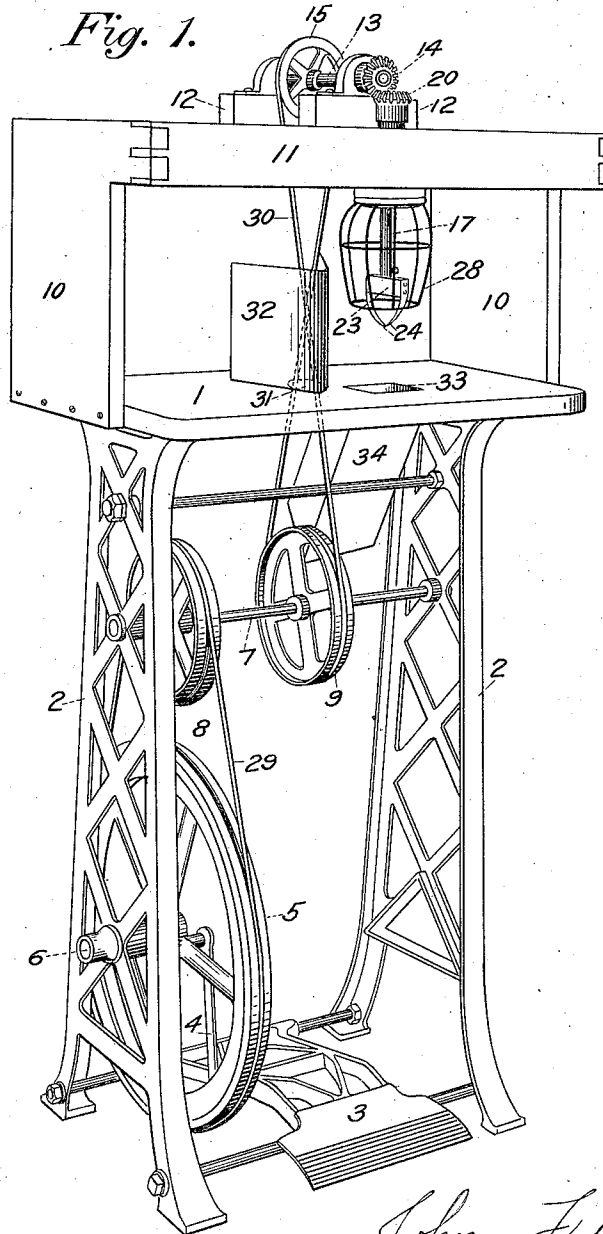


J. F. BARGHAUSEN.
BULB SCOOPING MACHINE.
APPLICATION FILED NOV. 23, 1912.

1,066,174.

Patented July 1, 1913.

2 SHEETS—SHEET 1.



Witnesses

W. H. Cobb
Arthur J. Quinn

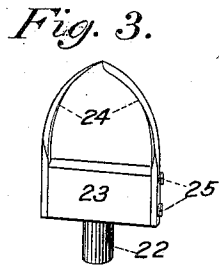
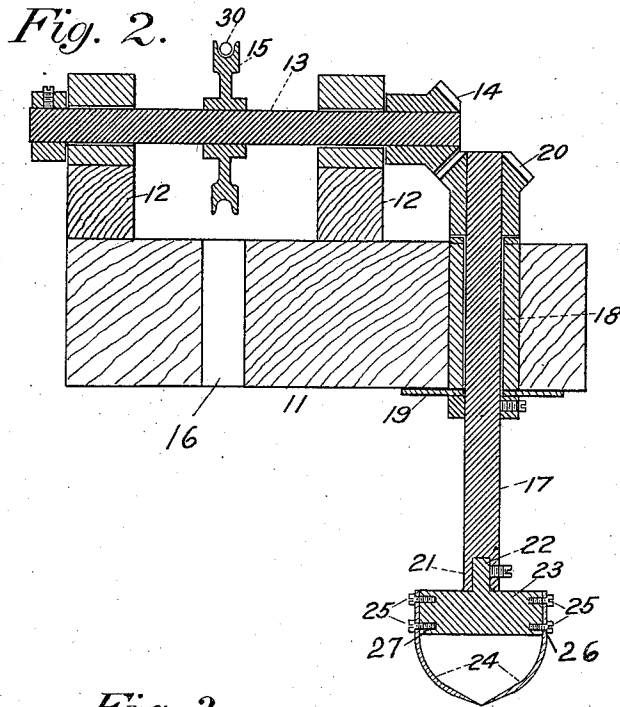
John F. Barghausen
Inventor

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Witnesses

W. H. Hall
Arthur G. Lane

John F. Barghausen
Inventor

UNITED STATES PATENT OFFICE.

JOHN F. BARGHAUSEN, OF WASHINGTON, DISTRICT OF COLUMBIA.

BULB-SCOOPING MACHINE.

1,066,174.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed November 23, 1912. Serial No. 733,216.

(DEDICATED TO THE PUBLIC.)

To all whom it may concern:

Be it known that I, JOHN F. BARGHAUSEN, a citizen of the United States, and an employee of the Department of Agriculture of the said United States, residing in the city of Washington, District of Columbia, (whose post-office address is Washington, District of Columbia,) have invented a new and useful Bulb-Scooping Machine.

This application is made under the act of March 3, 1883, chapter 143 (22 Stat. 625) and the invention herein described and claimed may be used by the Government of the United States or any of its officers or employees in the prosecution of work for the United States or by any person in the United States without the payment of any royalty thereon.

My invention relates to machines for scooping hyacinths or other flower bulbs.

The object of my invention is to provide a machine that is simple in construction, easy of operation, and which will properly scoop or hollow out or remove a portion of the base of hyacinths or other bulbs so as to expose the meristematic tissue for the purpose of stimulating the formation of bulblets. The bulblets produced on the exposed surface are subsequently planted and grown to flowering size.

Heretofore, the process of scooping bulbs has been conducted by hand, which operation is not only tedious but involves much time and labor. My invention dispenses with this method and consequently minimizes the time and labor incident thereto.

The nature, characteristic features and scope of my invention will be more readily understood from the following description, taken in connection with the accompanying drawings, forming a part hereof, wherein—

Figure 1 is a front perspective view of my invention; Fig. 2 is a vertical section of the top equipment of said machine on the line 1—1 of Fig. 1; Fig. 3 is a detailed perspective view of the cutting implement.

Referring to the apparatus disclosed in the drawings, an ordinary foot power table is employed comprising the top 1, supports 2 constructed preferably of iron or other suitable material, a treadle 3 arranged at the base of said supports having connection by means of the shaft 4 with a large pulley 5 secured to a shaft 6 passing through a

bearing in one of said supports, and the revolving shaft 7 passing through bearings in said supports above said pulley 5, carrying thereon a pulley 8 and a drive wheel 9, respectively. Secured to each end of the top piece 1 by screws or other means are standards 10 supporting a horizontal cross piece 11. On this cross piece are adjusted shoulders 12 which support a revolving shaft 13 provided with a miter gear 14 at one end and carrying a pulley 15. The pulley 15 is arranged at approximately the center of said shaft 13 and is adapted to revolve above an opening 16 cut in said horizontal cross piece between the shoulders 12. An upright metal shaft 17 passes through an opening 18 in said cross piece 11 and is held in an upright position by washers 19, secured under said cross piece 11. The shaft 17 is provided at its top with a miter gear 20 which engages the gear 14, and at its lower end with a hollow collar 21, in which is inserted the shoulder 22 of the crossbar or holder 23. The crossbar 23 has secured thereto knife blades 24, preferably two in number, which may be of any curvature, shape or form adapted to be attached to any type of shaft capable of being rotated by power. These knife blades are adjusted to said crossbar by means of screws 25, passing through openings 26, of the knife blades into apertures 27 of said crossbar. In order to protect the shaft and knife blades from injury or occasioning injury to the operator, a wire guard 28 is placed over said parts in such a manner as to permit the knife blades to project downwardly below the guard at approximately one third of their length.

A round belt 29 connects pulley 5 with pulley 8, while the drive wheel 9 is connected with the pulley 15 by means of a round belt 30 twisted at right angles which pass through an opening 31 in the top piece 1 and a V-shaped metal guard 32 secured to said table top. The pulleys 29 and 30 are employed for transmitting motion for rotating the knife blades 24 as hereafter described.

In the table top 1 directly below the knife blades 24 is an opening 33, which affords an entrance into a chute 34, secured to the underside of said top. This arrangement of the chute is for the purpose of providing a passageway for the waste bulb tissue to fall

through into a basket or other receptacle after the scooping operation is finished.

In practising my invention, the treadle 3 may be operated by either hand, foot, electric, steam, water, or other form of power. 5 The movement of the treadle causes pulley 5 to rotate by means of shaft 4 responding to the action of the treadle, and the pulley 5 in turn communicates motion to the pulley 8 10 through the round belt 29, thereby turning the shaft 7 which revolves the drive wheel 9. The belt 30, responding to the motion of the drive wheel 9 turns pulley 15, thereby revolving shaft 13, which shaft in turn rotates gear 14. Gear 20 engaging gear 14 15 responds to the movement of said last mentioned gear and at the same time rotates the upright shaft 17. The knife blades 24, secured to the crossbar 23 having connection 20 with the shaft 17 by adjustment of the shoulder 22 in the collar 21, are rotated with the revolution of the said upright shaft. The knife blades may be rotated at any rate of speed.

25 In conducting the scooping process the operator grasps the bulbs in his hands, base uppermost. His hands are allowed to rest on the table top 1, and while the knife blades are rotating he applies the base of the bulb 30 to the revolving knife blades. The blades while in motion immediately hollow or scoop out the desired quantity of tissue from the base to the proper depth. Such scooped bulb is then placed in a suitable receptacle 35 and the waste tissue on the table top is

pushed in the opening 33 and permitted to fall through the chute 34, into a receptacle, thereby completing the scooping operation. Rapidity in scooping the bulbs depends solely upon the skill of the operator. 40

From the foregoing it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, purposes and minor details of construction of the knife blades, as well as changes in the means of rotating said knife blades may be resorted to without departing 45 from the spirit or sacrificing any of the advantages of the invention. 50

Having thus described my invention, I claim:

An apparatus of the character described 55 comprising a support, a rotary shaft mounted in said support, a cutter having laterally spaced cutting blades mounted upon the end of said shaft and a guard mounted to extend 60 around said shaft and cutter and spaced therefrom, said cutter extending slightly beyond the adjacent end of said guard, substantially as specified.

In witness whereof I affix my signature in the presence of two subscribed witnesses. 65

JOHN F. BARGHAUSEN.

Witnesses:

JAMES E. JONES,
W. P. Cox.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."