April 12, 1966 E. J. THOMPSON 3,245,478

MACHINE FOR FORMING POCKETS IN SOIL

Filed July 13, 1964 2 Sheets-Sheet 1

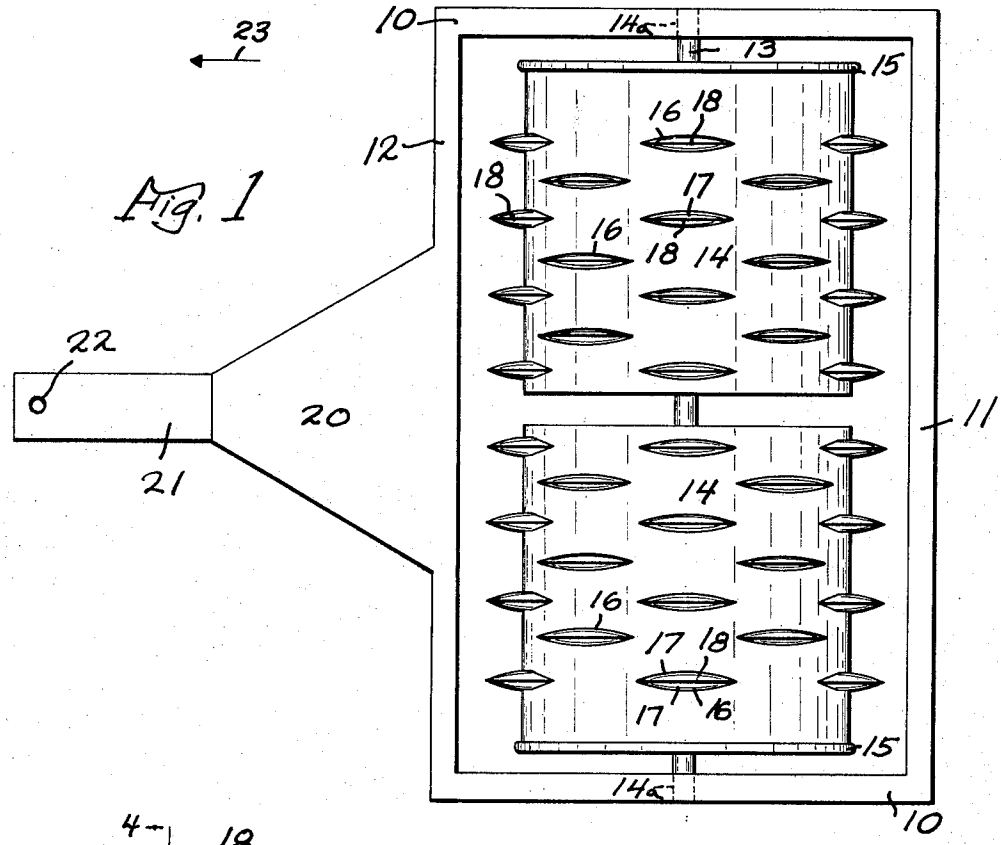


Fig. 1

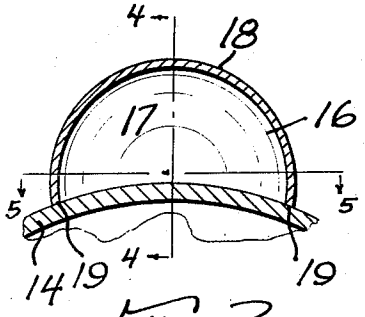


Fig. 3

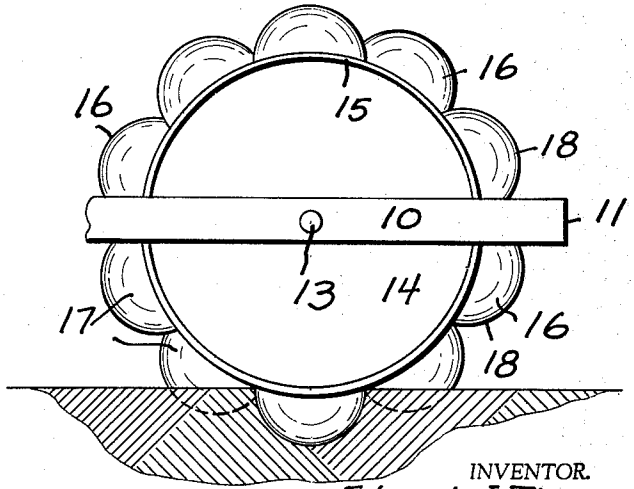


Fig. 2

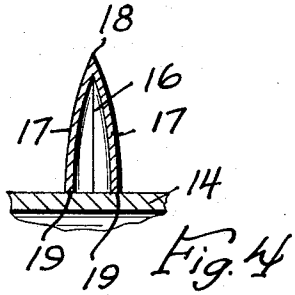


Fig. 4

INVENTOR.
Edward J. Thompson
BY
Sam C. Slotky
ATTORNEY

April 12, 1966 E. J. THOMPSON 3,245,478

MACHINE FOR FORMING POCKETS IN SOIL

Filed July 13, 1964 2 Sheets-Sheet 2

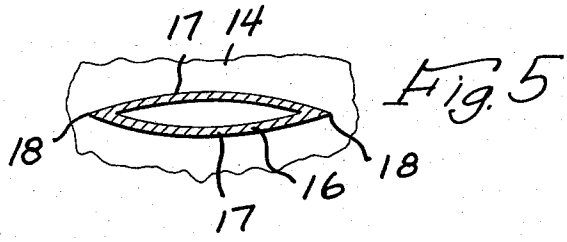


Fig. 5

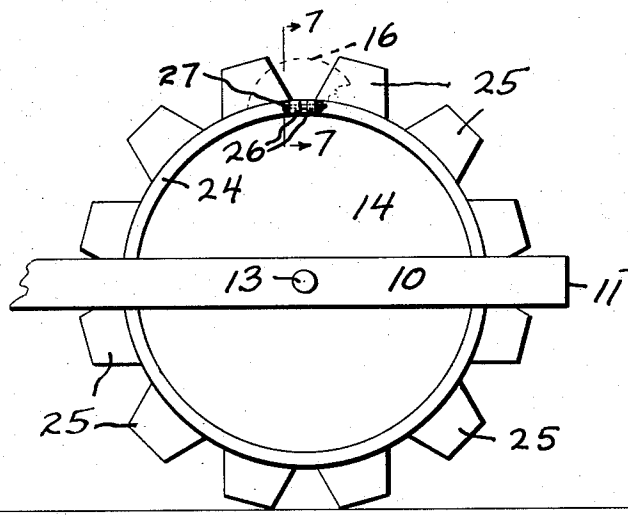


Fig. 6

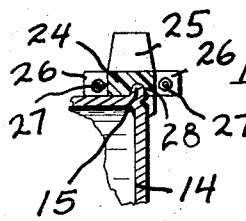


Fig. 7

INVENTOR.
Edward J. Thompson
BY
Sam J. Slotky
ATTORNEY

United States Patent Office 3,245,478 Patented Apr. 12, 1966

3,245,478

MACHINE FOR FORMING POCKETS IN SOIL

Edward J. Thompson, R.F.D., Baltic, S. Dak.

Filed July 13, 1964, Ser. No. 382,143
2 Claims. (Cl. 172—240)

My invention relates to a machine for forming pockets in soil.

An object of my invention is to provide a machine of this type, which, however, will efficiently form water-receiving pockets in relatively hard soil such as grassy lawns, etc.

A further object of my invention is to provide a device of this character which can be manufactured at a fairly reasonable cost, and which will provide pockets in staggered relation.

A further object of my invention is to provide a machine which will include pocket forming members which are substantially in the form of blades so that they will be sure to provide the proper pockets in the soil.

A further object of my invention is to provide a device which can be hitched to any desired type of drawing vehicle.

A further object of my invention is to provide special attachments to my device whereby the device can be readily transported over roadways and the like without injury to the parts of the device.

With these and other objects in view, my invention consists in the construction, arrangement, and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

FIGURE 1 is a plan view of the device,

FIGURE 2 is a side elevation of a portion of the device,

FIGURE 3 is an enlarged sectional view taken longitudinally through one of the pocket forming blades,

FIGURE 4 is a sectional view of FIGURE 3 taken along the lines 4—4 thereof,

FIGURE 5 is a sectional view of FIGURE 3 taken along the lines 5—5 thereof,

FIGURE 6 is a side elevation showing the transporting arrangements, and

FIGURE 7 is a sectional view taken substantially along the lines 7—7 of FIGURE 6.

In describing my invention I have used the character **10** to designate side portions of a framework, the character **11** indicating a rear portion, and the character **12** a forward portion, these portions being made of flat stock, angle iron or any other desired structures.

I have further used the character **13** to indicate a transverse axle member which is suitably journalled at **14***a* in the side members **10**, the shaft **13** passing through a pair of hollow drums **14** containing water for providing fairly considerable weight to the unit, and I have further used the character **15** to indicate raised annular beads at either side of the drums **14**.

Attached to the cylindrical drums **14** are a series of pocket forming members indicated generally by the character **16**. The members **16** can be hollow as shown, or can be solid, and the members **16** include the side walls **17** which converge to the sharpened edges **18**, which edges are practically semi-circular as shown in FIGURE 3, the edges **18** being adapted to provide a penetrating and cutting action in the soil.

The members **16** are suitably welded as at **19**, and it will be noted from FIGURE 1 that the various members **16** are in off-set and staggered relation to provide a staggered arrangement of pockets.

The character **20** indicates a further hitch portion attached to the member **12**, the character **21** indicating a further hitch portion, the character **22** indicating an opening for receiving a hitch pin or the like.

The device is drawn in the direction of the arrow **23** and it will be noted that the various members **16** due to their shape will provide a continuously applied slicing or cutting action along the portion **18**, which in effect will cause penetration into the grassy soil or other hardened soil, the weight of the drums further insuring this effect. The pockets thus formed will serve to conserve rainfall and moisture, which moisture will gradually seep into the surrounding earth areas.

FIGURE 6 illustrates the use of the special devices for transforming the unit into a portable arrangement. In providing portability to such an arrangement it is relatively difficult to raise the heavy framework and drums, and for this purpose I provide a pair of lengthened resilient flexible strips **24** to which are integrally or otherwise attached the fairly resilient lugs **25**, the lugs **25** being long enough to pass outwardly beyond the confines on the portions **18**.

The strips **24** also include the outwardly extending lug portions **26** adapted to receive the bolts **27** whereby the arrangement can be firmly secured onto the beads **15**, the character **28** indicating a lengthened recessed channel in the strips **24** for this purpose.

These lug units are placed on the arrangement by merely digging a trench in the soil suitable to receive the lugs with the strip **24** being faced upwardly, whereupon the unit is drawn forwardly so that the beads **15** will pass into the channels **28**, and then the ends of the strips **24** are brought upwardly and bolted together substantially as shown in FIGURE 6.

This particular arrangement will then allow the unit to be drawn over roadways and the like without injury to the dam-forming elements.

It will now be noted that I have provided the advantages mentioned in the objects of my invention with further advantages being apparent.

Some changes may be made in the construction and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

1. A machine for forming pockets in soil comprising a transversely positioned relatively heavy cylindrical member mounted for rotation, a plurality of soil pocket forming elements attached to said cylindrical member, said soil pocket forming elements including substantially semi-circular outer cutting edge portions for providing a positive cutting action in the soil, said pocket forming elements being relatively narrow in cross section and including side walls sloping from said cutting edge portions to said cylindrical member, a framework in which said cylindrical member is journalled, means attached to said framework for drawing said framework, said pocket forming elements being in overlapping relation peripherally, means for providing portability to said machine including a pair of flexible straps, resilient lugs attached to said straps, means for attaching said straps at each outer end of said cylindrical member, said lugs extending radially beyond said pocket forming elements.

2. A machine for forming pockets in soil comprising a transversely positioned relatively heavy cylindrical member mounted for rotation, a plurality of soil pocket forming elements attached to said cylindrical member, said soil pocket forming elements including substantially

semi-circular outer cutting edge portions for providing a positive cutting action in the soil, said pocket forming elements being relatively narrow in cross section and including side walls sloping from said cutting edge portions to said cylindrical member, a framework in which said cylindrical member is journalled, means attached to said framework for drawing said framework, said pocket forming elements being in overlapping relation peripherally, means for providing portability to said machine including a pair of flexible straps, resilient lugs attached to said straps, means for attaching said straps at each outer end of said cylindrical member, said lugs extending radially beyond said pocket forming elements, said straps including longitudinal channels, said cylindrical member including peripheral end beads for engaging said channels.

References Cited by the Examiner

UNITED STATES PATENTS

895,230	8/1908	Beier	172—554
1,382,067	6/1921	Dehymel	301—40
1,762,994	6/1930	Kneen	301—39
1,844,533	2/1932	White	172—243
2,146,222	2/1939	Pace	172—539
2,400,428	5/1946	McCrary	301—44
2,484,285	10/1949	Greiner	94—50
3,087,526	4/1963	Barassi et al.	152—176

FOREIGN PATENTS

632,299	10/1927	France.
571,105	8/1945	Great Britain.

ABRAHAM G. STONE, *Primary Examiner.*