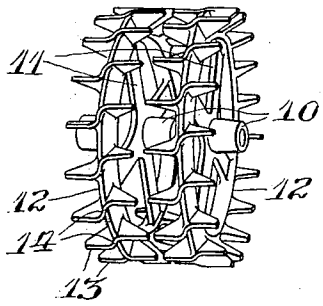
June 12, 1928. 1,673,184

S. W. CADY

SUBSOIL PACKER

Filed May 2, 1923

Fig. 4.



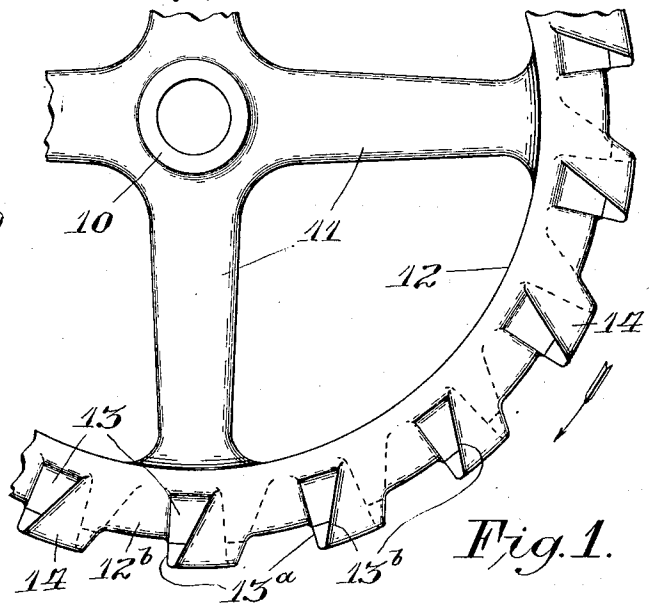
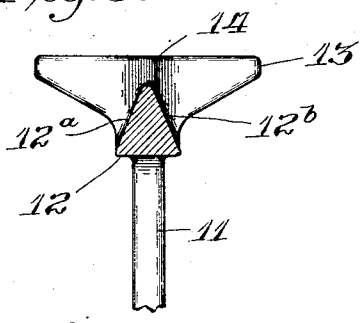


Fig. 1.

Fig. 3.



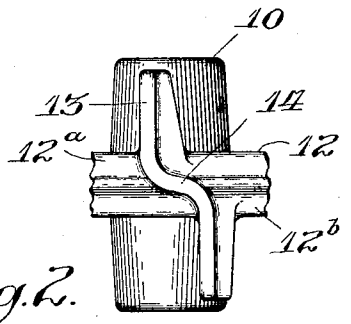


Fig. 2.

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Patented June 12, 1928. 1,673,184

UNITED STATES PATENT OFFICE.

SHERMAN W. CADY, OF HAMILTON, ONTARIO, CANADA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO INTERNATIONAL HARVESTER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

SUBSOIL PACKER.

Application filed May 2, 1923. Serial No. 636,046.

My invention is directed to an improvement in the construction of sub-soil packers and more particularly to the specific design of the tread of the individual rollers or wheels used to make up the implement.

The objects of my invention are to provide a packer wheel which, besides packing the sub-soil, will have the effect of stirring up the surface soil to a certain extent, thus turning out small weed growth to be dried out and killed and leave the surface marked with ridges and depressions and covered with small lumps or clods and in best condition to resist the action of the wind that tends to blow away the finely pulverized surface soil in dry territories thereby allowing evaporation of the moisture in the sub-soil.

These objects are attained by providing a novel form of packer wheel tread comprising the combination with the wheel rim, of wings or fins constructed and arranged in a novel manner thereon as hereinafter described and claimed.

Referring to the drawings—

Fig. 1 is a side view of a portion of a packer wheel of my invention;

Fig. 2 is a detail plan view of a portion of the tread showing the form and arrangement of the rim and fins;

Fig. 3 is a similar view on a line through the wheel rim; and

Fig. 4 is a view on a reduced scale showing two of the wheels as they appear when assembled in gangs.

The packer wheel comprising my invention is shown in this instance as formed with a hub 10 from which radiates spokes 11 that support the rim 12. This rim is preferably V-shaped as best shown in Fig. 3 and presents opposite inclined faces 12^a, 12^b to the soil. At equally spaced intervals throughout the circumference of the rim 12 there are provided pairs of opposite laterally extending fins or lugs 13, one lug or fin of each pair being offset from the other and the inner edges of the two being connected by a web 14 that extends obliquely across the apex of the rim 12. The fins 13 project a short distance beyond the apex of the rim 12, as shown in Fig. 3, and the connecting web 14 forms a continuation of and is on a level with their ground engaging edges, the web 14 in the present instance being shown as shaped on a compound or ogee curve as best seen in Fig. 2. Each fin 13 extends laterally from one inclined face of the rim 12 and has one of its sides or faces 13^a flat and positioned on a line extending radially from the wheel axis, while its opposite side 13^b is inclined or tapered rearwardly. The flat or radial sides of the fins are intended to be presented to the soil first as indicated by the arrow in Fig. 1 so that this side of the lugs or fins 13 will compress or pack the soil it engages as it first enters the ground, and as the wheel continues to turn it draws or kicks up a portion of this packed part.

It will be understood that the packer wheel of the construction described is usually cast integrally and that any number desired can be assembled on a single shaft to form a sub-soil packer gang of the well known type, the wheels usually being allowed to have independent rotation on their common bearing shaft.

In operation the radial side 13^a of each fin packs the soil when it first encounters the ground and, as the wheel continues to revolve as it moves forward, there is a tendency to draw a portion of this packed part to the surface, as before mentioned, thereby leaving the surface rough and having an effect similar to a light harrowing which kills out a considerable portion of the small weed growth. At the same time, the engaging edge of the fins and the apex of the rim pack the sub-soil and the ground is finally left covered by small lumps or clods formed from the irregular ridges that were shaped by the faces 13^a and 13^b of the fins and the inclined sides of the rim and then partly broken down by the action of the straight face 13^a as above described. The ground is thus left in best condition to resist the action of the wind and the sub-soil is packed in a manner to close air spaces and retain moisture.

The construction above described exemplifies the preferred form of my invention but variations therefrom are possible within the scope of the following claims.

I claim as my invention:

1. A packer wheel having a V-shaped rim provided with fins projecting laterally from the opposite inclined faces of the rim throughout its circumference, said fins pro-

jecting outwardly beyond the apex of the rim and being disposed in spaced pairs of oppositely projecting fins offset from one another, the inner edges of each pair being connected by a web extending across the rim.

2. A packer wheel having a V-shaped rim provided with fins projecting laterally from the opposite inclined faces of the rim throughout its circumference, said fins being formed with a forward radial face and a rear inclined face and being disposed in spaced pairs of oppositely projecting fins offset from one another, said fins projecting outwardly beyond the apex of the rim and being connected by an obliquely extending web extending across the rim.

3. A packer wheel having a rim provided with fins projecting laterally from the opposite side faces of the rim throughout its circumference, said fins projecting outwardly beyond the periphery of the rim and being disposed in spaced pairs of oppositely projecting fins offset from one another and connected by a web extending across the rim.

4. A packer wheel having a packing rim provided with fins projecting laterally and radially therefrom, said fins being formed with an irregularly curved ground engaging edge and having portions formed with forward radially extending faces and rear faces inclined backwardly from the ground engaging edge.

In testimony whereof I affix my signature.

SHERMAN W. CADY.