March 24, 1925. 1,531,064

J. L. BENNETT

EARTH ROLLER AND PULVERIZER

Filed March 22, 1923

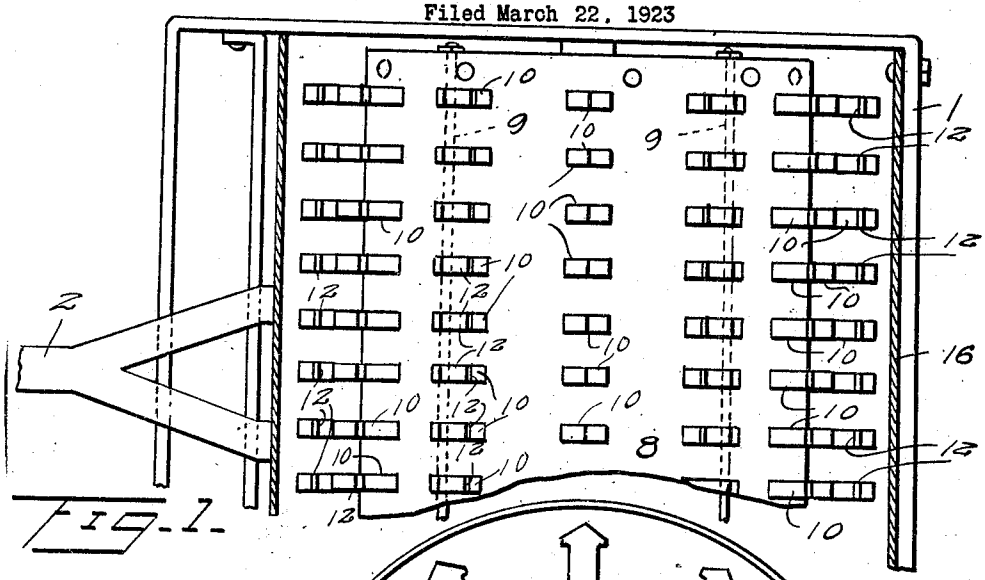


Fig. 1.

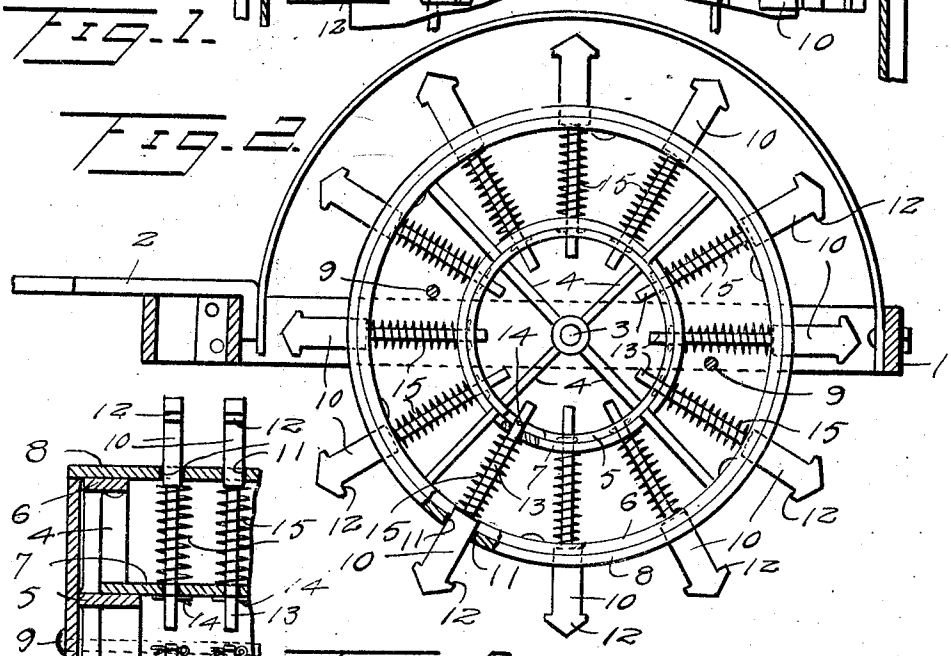


Fig. 2.

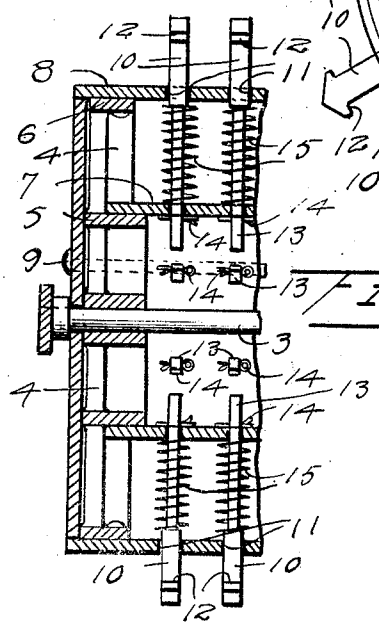


Fig. 3.

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UNITED STATES PATENT OFFICE.

JEFFERS L. BENNETT, OF SARANAC, NEW YORK.

EARTH ROLLER AND PULVERIZER.

Application filed March 22, 1923. Serial No. 626,861.

To all whom it may concern:

Be it known that I, JEFFERS L. BENNETT, a citizen of the United States, residing at Saranac, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Earth Rollers and Pulverizers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention aims to provide a device for simultaneously rolling or leveling of the soil and the pulverizing of the same whereby to prepare the ground for receiving seed, the device comprising a drum mounted in a frame and provided with yieldable teeth which move inward when coming in contact with a stone or other object, thereby preventing injury to the parts.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the nature of the invention.

Referring to the accompanying drawings forming a part of the application:

Figure 1 is a top plan view of a portion of an earth rolling and pulverizing machine embodying the invention, the guard being in section,

Figure 2 is an end view of the roller, the frame being in section, and

Figure 3 is a sectional detail view of an end portion of the roller.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The machine embodies a frame 1 having a pole or tongue 2 for attachment of the draft thereto. A shaft 3 is disposed transversely of the frame and journaled at opposite ends in bearings applied thereto. Supports are secured to opposite ends of the shaft 3 and each support comprises radial arms 4, an inner ring 5 and an outer ring 6. An inner drum 7 is fitted at its ends to the inner ring 5 and an outer drum 8 is fitted to the outer ring 6, said drums being clamped between the supports by tie rods 9 extending from one to the other. A plurality of teeth 10 stud the outer drum 8 and are mounted in openings 11 formed therein so as to receive a radial movement. The teeth 10 may be of any formation and of any determinate length and are preferably limited in their inward movement by means of shoulders 12 at their outer ends. Stems or rods 13 extend inwardly from the teeth 10 and pass through openings formed in the inner drum 7. Pins 14 applied to the inner ends of the stems or rods 13 limit the outward movement of the teeth 10 by engaging the inner side of the drum 5. Expansible helical springs 15 mounted upon the stems or rods 13 normally urge the teeth 10 outwardly and admit of their yielding inwardly when coming in contact with a stone or other unyielding object, thereby preventing injury to the teeth. The springs 15 may be of any strength to insure the teeth 10 penetrating clods of earth and breaking up and pulverizing the same. In the preferable arrangement, the springs 15 are confined between the inner drum 5 and the inner ends of the teeth 10 so as normally to press the teeth outwardly. A guard 16 extends over the upper portion of the drum 8 to protect the driver from injury or prevent anyone from coming in contact with the teeth. The openings 11 are non-circular, being preferably oblong to prevent any turning of the teeth 10 and hold them in the located position.

What is claimed is:

A machine of the character specified comprising a frame, a shaft, supports journalling and located at opposite ends of said shaft, each support having radial arms and inner and outer concentric rings, inner and outer drums fitted to said rings between the supports, the ends of the inner drum being abutted by the adjacent radial arms, the outer drum overlapping the outer ring, ties connecting the supports and clamping

the drums therebetween, teeth slidably mounted by the inner and outer drums, means limiting the inward and outward movement of the teeth, and coil springs surrounding the teeth and confined between the drums and normally urging the teeth outward.

In testimony whereof I affix my signature in presence of two witnesses.

JEFFERS L. BENNETT.

Witnesses:

EDMUND H. PRENDERGAST,

H. LINCOLN JACKSON.