

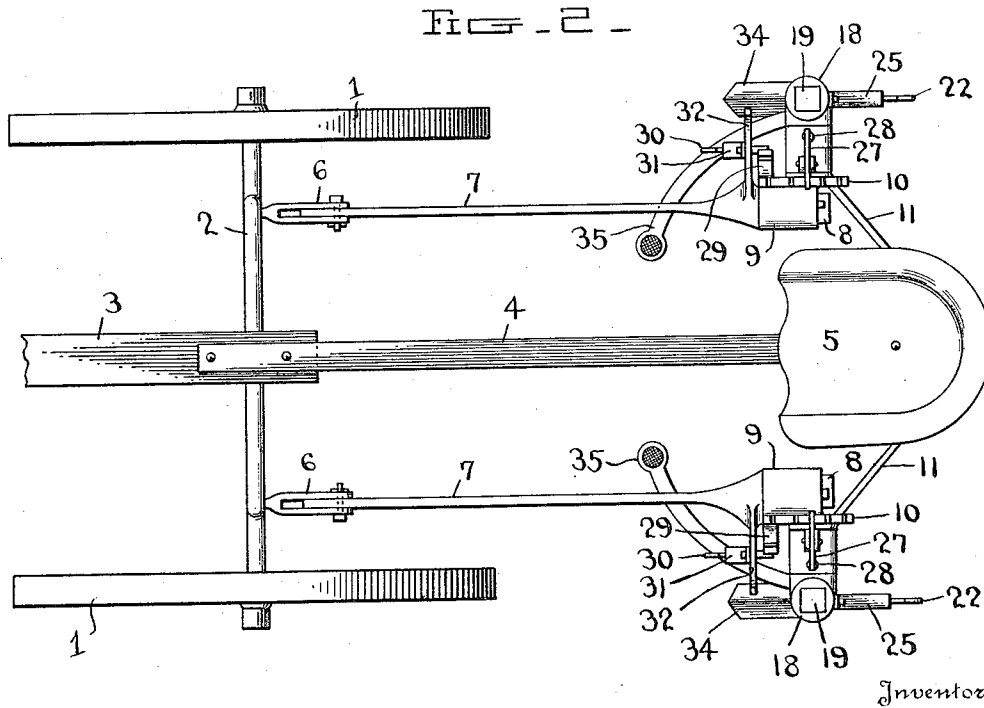
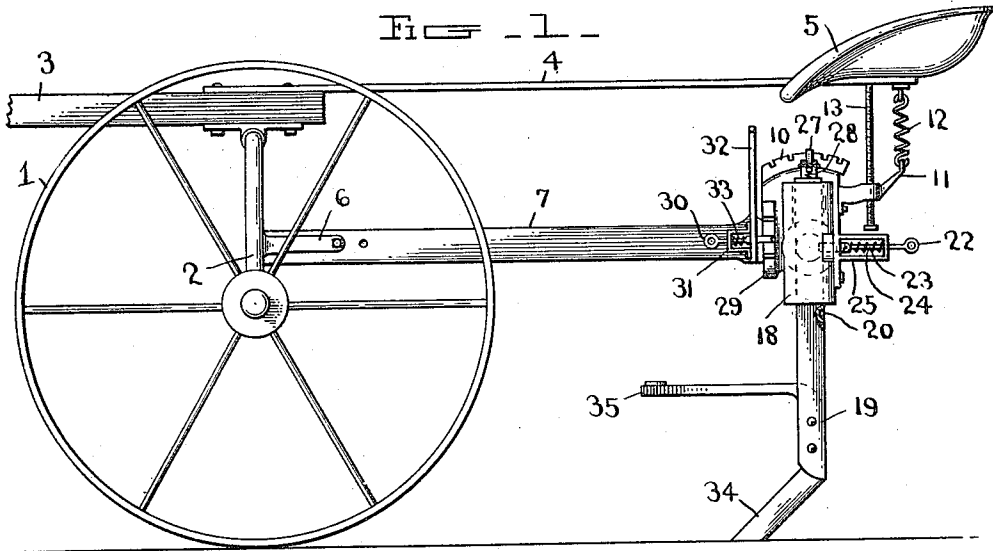
F. BRAUNE.
CULTIVATOR.

APPLICATION FILED MAR. 31, 1913.

Patented Sept. 28, 1915.

2 SHEETS—SHEET 1.

1,154,841.



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Fig. 3.

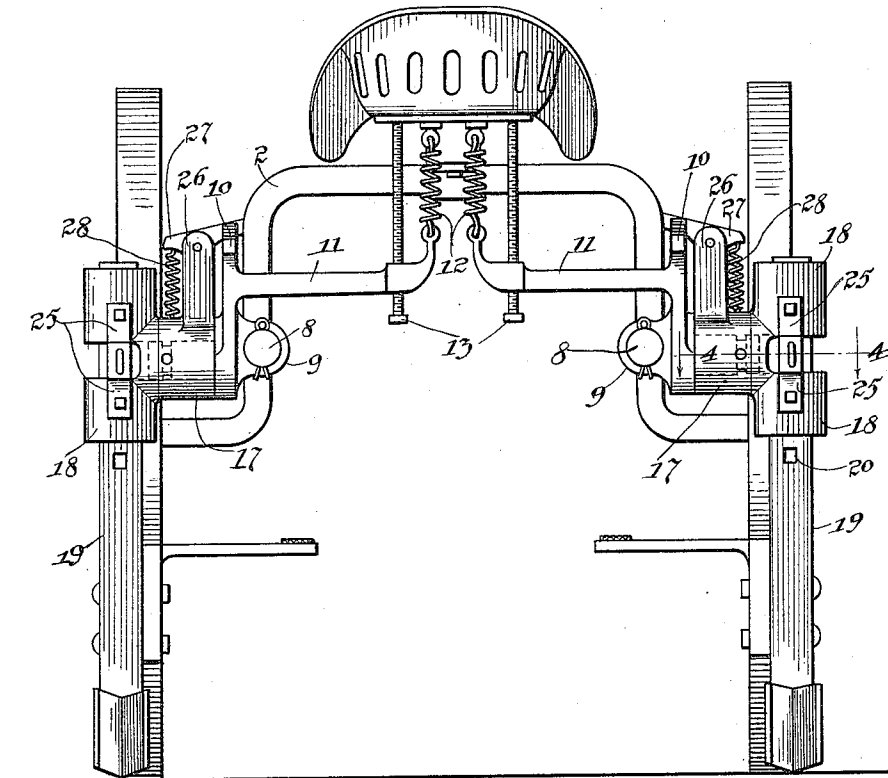
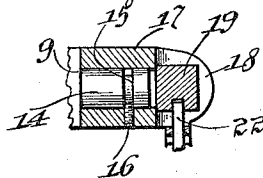


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRIEDRICH BRAUNE, OF CLIFTON, TEXAS.

CULTIVATOR.

1,154,841.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed March 31, 1913. Serial No. 757,914.

To all whom it may concern:

Be it known that I, FRIEDRICH BRAUNE, a citizen of United States, residing at Clifton, in the county of Bosque and State of Texas, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

This invention relates to improvements in cultivators and it contemplates the provision of such a machine wherein each shovel standard is so mounted upon a longitudinal shaft as to be capable of oscillation toward either side of the machine thereby making it possible to vary the distance between the shovels; the shovel standards are also capable of vertical adjustment thereby regulating the depth of shovel penetration and said shovel standards are also capable of oscillation in a plane at right angles to the axle of the machine thereby effecting an almost vertical or as oblique or angular a shovel penetration as may be desired.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described in the following specification, pointed out in the claims and illustrated in the accompanying drawings which form a part of the specification and in which—

Figure 1 is a fragmental side elevation of my invention or cultivator; Fig. 2 is a fragmental plan view thereof; Fig. 3 is a rear elevation of the same; Fig. 4 is a section taken on the line 4—4 of Fig. 3.

Like reference characters indicate corresponding parts throughout the several views.

1, 1 are the traction wheels of my cultivator mounted upon an axle 2; 3 is the tongue and 4 the beam that carries the seat 5. To the axle 2 a plurality of couplings 6 are fixed that pivotally carry one end of longitudinal beams 7 which terminate at their opposite extremities in pivots 8 whereon bearings 9 are mounted that are formed integral with segments 10 from which segments integral arms 11 are projected and to the free extremities of which arms springs 12 are secured that are fastened to the seat 5. Each arm 11 is apertured for passage therethrough of an adjusting screw 13 which engages the seat 5 to regulate the tension of spring 12 upon said arm.

The bearing 9 is formed with a shaft-pro-

jection 14 which is formed with an annular recess at 15 for the reception of one end of a screw 16 carried by a sleeve 17 disposed upon said shaft 14. The sleeve 17 is formed with integral oppositely disposed guide sleeves 18, 18 disposed in a plane at right angles to the plane of the sleeve 17 and in said guide sleeves the shovel standard 19, square in cross section, is arranged. Said shovel standard is formed with a plurality of apertures 20 to receive an eye-bolt 22 upon which a spring 23 is disposed which abuts the bolt at one extremity and a casing 24 at the opposite extremity, said casing being apertured for passage of the eye-bolt and having its angular extremities 25 bolted to the guide sleeves 18. It is readily seen that by means of the pin 22 and its connections the shovel standard 19 may be adjusted within the guide sleeves and locked in such position.

26 is a support made integral with sleeve 17 and bifurcated at its upper extremity for the reception of a dog 27 adapted for engagement at one extremity with the segment 10 while the opposite extremity is engaged by a spring 28 fastened to the said sleeve 17.

29 is another segment made integral with the sleeve 17 and disposed in a plane at right angles to the plane of the segment 10 and adapted for engagement with an eye-bolt 30 that extends through a casing 31 secured to a guide piece 32 carried by the beam 7 and upon the body of said eye-bolt a spring 33 is disposed to retain the bolt in its set or adjusted position. The shovel standards are provided with shovels 34 and also with foot levers 35 by means of which the shovels may be retained at a set depth in the ground against the tension of the spring 28.

Operation: If it is desired to increase or diminish the shovel penetration the eye-bolt 22 is drawn out of engagement with the shovel standard 19 and the said standard manually raised or lowered as desired and the eye-bolt then reset in the aligned aperture in said shovel standard. If it is desired to oscillate one or more shovel standards to either side of the machine thereby increasing or diminishing the space between such standards the eye-bolt 30 is withdrawn from engagement with the segment 29 and the bearing 9 oscillated on the pivot 8 and then by means of eye-bolt 30 again locked in engagement with segment 29. If it is de-

sired to oscillate the shovel standards in a plane at right angles to the axle of the machine the dog 27 is raised out of engagement with the segment 10 and the sleeve 17 oscillated upon the shaft 14 and when said sleeve is set as desired the dog 27 is again placed in engagement with segment 10. The description and operation just given applies to any one or all shovel standards and connections.

What is claimed is:—

1. In a cultivator, a beam, sleeves on the beam, a shovel standard slidable vertically in the sleeves, said standard having stops, and a spring-pressed pin on the sleeves arranged to engage the stops of the standard.

2. In a cultivator, a wheeled axle, a beam connected thereto, seat bar supported on the axle, a seat on said seat-bar, a shovel standard carried by said beam, an arm, means connecting said arm to said beam, a spring

connecting said arm to said seat bar, and a screw threaded in said arm and engaging said seat bar to move said beam and said seat bar apart against the tension of the spring.

3. In a cultivator, a wheeled axle, a seat bar thereon, beams pivoted to the axle, arms carried by the beams, springs connecting the arms to said seat-bar, screws carried by the arms for causing said beams to move away from said seat-bar, and vertically and radially adjustable shovel standards carried by the second beams.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two subscribing witnesses.

FRIEDRICH BRAUNE.

Witnesses:

H. F. THEIS,

CONRAD ORLITT.

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