

(No Model.)

S. GASSER.
CULTIVATOR.

No. 464,561.

Patented Dec. 8, 1891.

Fig. 1.

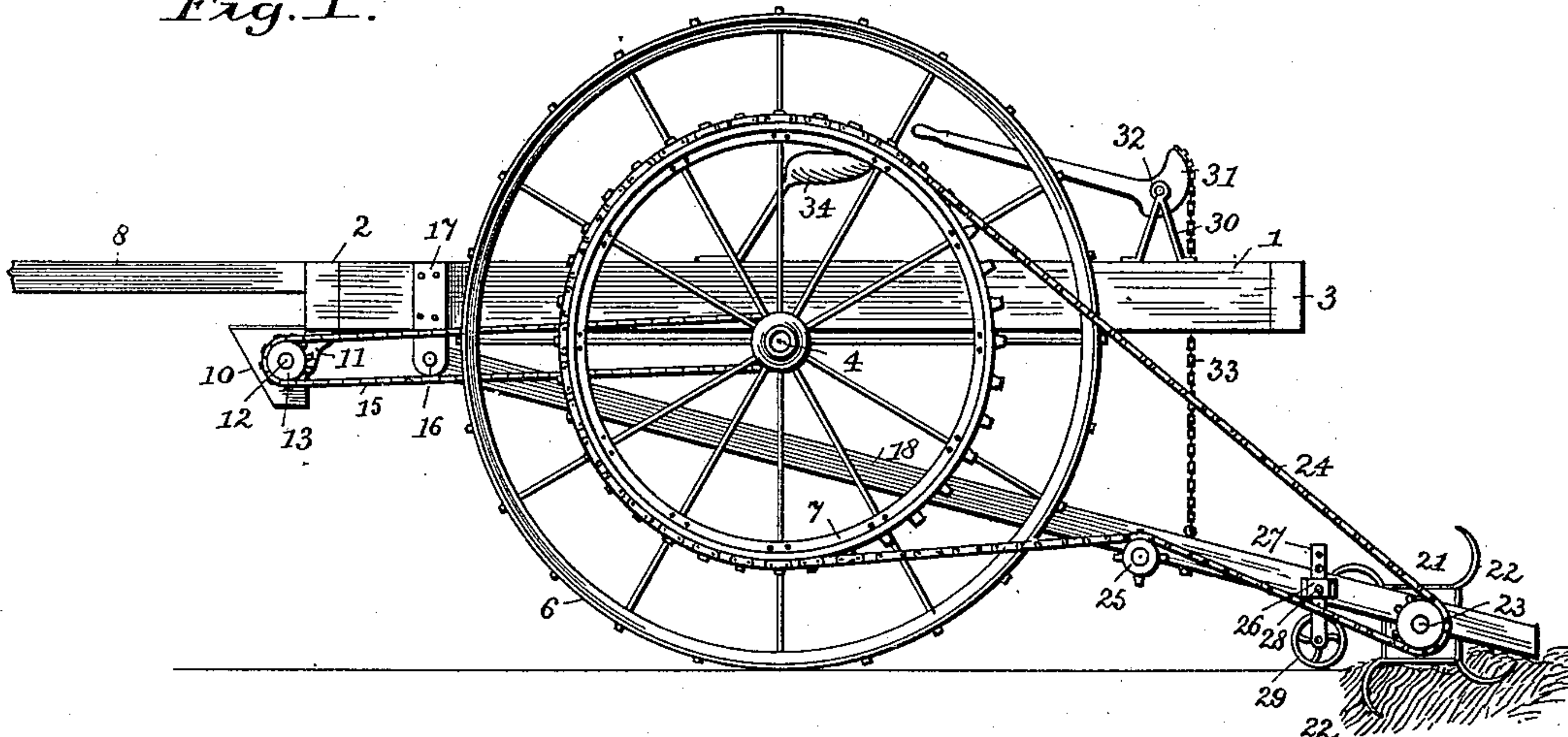


Fig. 2

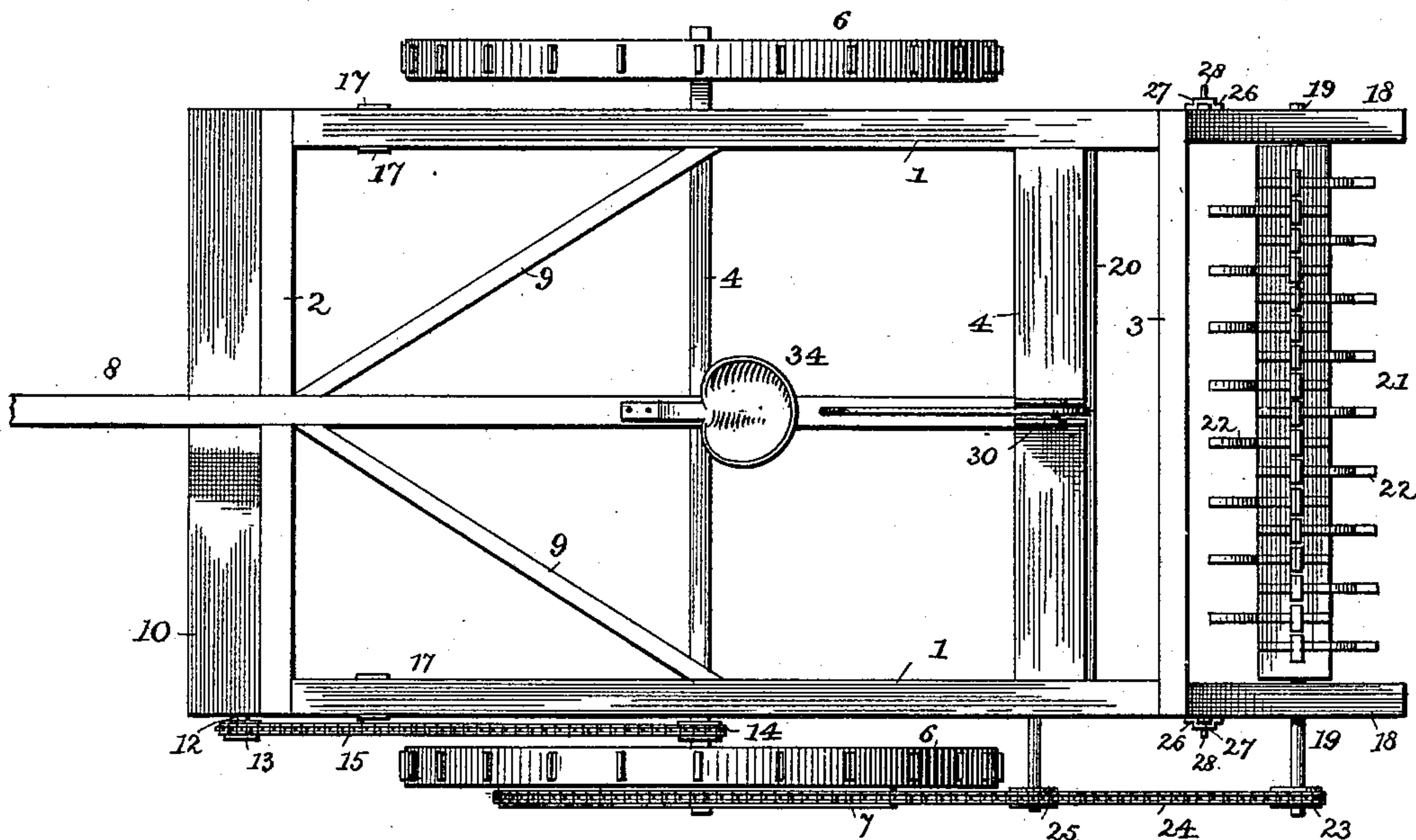
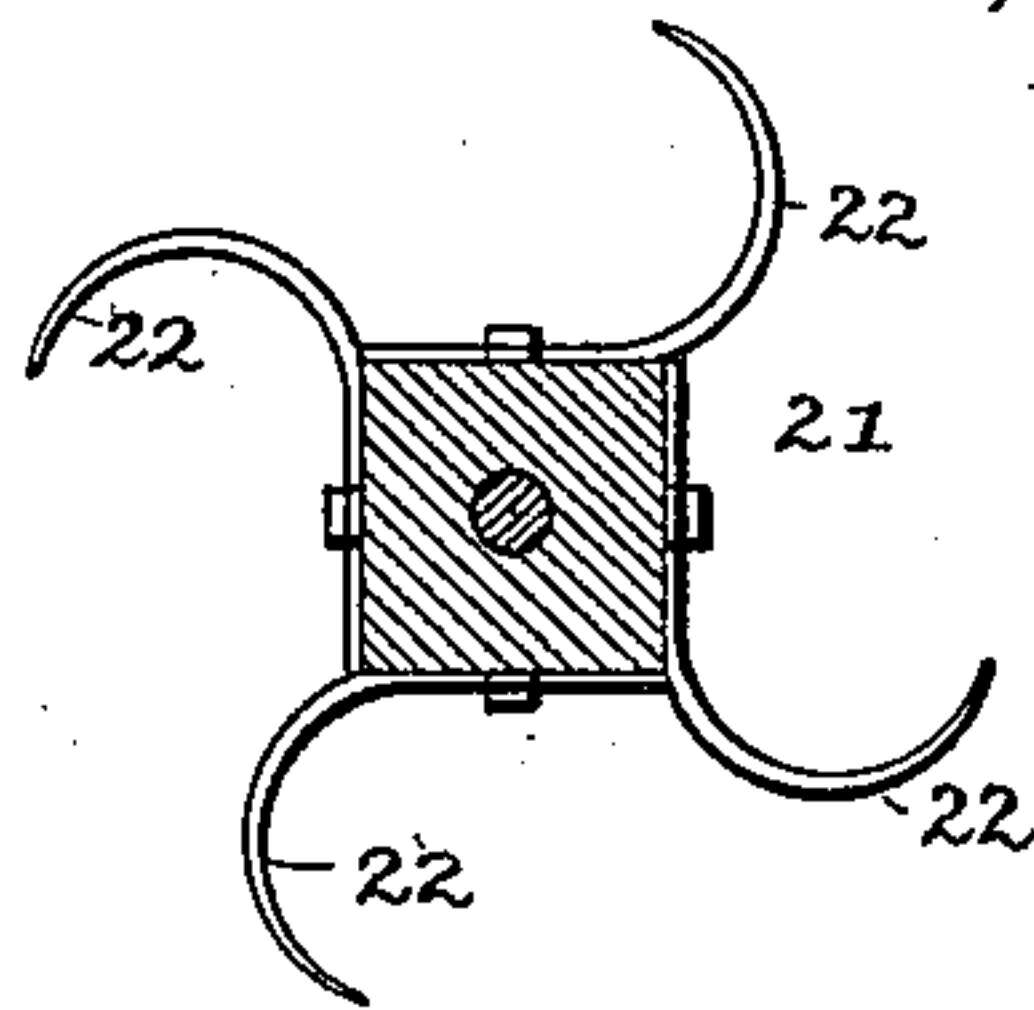


Fig. 3.



Witnesses:

Chas H. Curand

W. J. Dural.

Inventor

Sanford Gasser

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

SANFORD GASSER, OF TROUT CREEK, MICHIGAN.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 464,561, dated December 8, 1891.

Application filed September 14, 1891. Serial No. 405,675. (No model.)

To all whom it may concern:

Be it known that I, SANFORD GASSER, a citizen of the United States, residing at Trout Creek, in the county of Ontonagon and State of Michigan, have invented a new and useful Cultivator, of which the following is a specification.

This invention relates to improvements in cultivators; and the objects in view are to provide a cultivator of great simplicity that is adapted to thoroughly cultivate the ground, plant seed, and capable of being adjusted so as to cultivate at different depths.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a cultivator constructed in accordance with my invention. Fig. 2 is a plan of the same. Fig. 3 is a transverse section of the cultivator-shaft.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ an oblong frame-work consisting of opposite side bars 1, a front cross-bar 2, a rear cross-bar 3, and an intermediate cross-bar 4. This frame-work is mounted upon an axle 5, which beyond the frame-work carries ground-wheels 6, one of which is provided with a sprocket-wheel 7, secured to its spokes.

8 designates a draft-tongue, which is bolted to the intermediate transverse bar 4 and the front transverse bar 2, and at its junction with the latter are connected the front ends of a pair of diverging hounds or braces.

10 designates a seed-box that may or may not be employed, and the same is secured by brackets 11 to the front cross-bar 2. An agitator-shaft 12 is journaled in the end walls of the box and outside of the same is provided at one end with a sprocket 13, which sprocket is operated by and connected with a small sprocket-gear 14, located upon the axle and turning therewith. The connection is made through the means of a sprocket-chain 15.

Pivoted, as at 16, in a pair of depending stirrups 17, supported by the longitudinal bars 1 near their front ends, is a pair of opposite inclined side bars 18, which near their

rear ends are provided with bearings 19 and are connected near their rear ends by a transverse bar 20. In the bearings is mounted for rotation a cultivator-shaft 21, which between the bars 18 is rectangular and provided with a series of curved cultivator-teeth 22, bolted to the four faces of the shaft. Outside of one of the bars 18 the shaft is provided with a sprocket 23, which is operated through the medium of a sprocket-chain 24, which passes over the sprocket 7. To that bar 18, adjacent to the chain, a belt-tightening pulley 25 is applied, the same also engaging with the chain and serving its usual function. In a keeper 26, one of which is secured to each of the bars 18 near their rear ends, are mounted vertical standards 27, which standards are adjustable by means of pins 28, passed through perforations in the standards and keepers. These standards at their lower ends carry small supporting-wheels 29, and by an adjustment of the standards the cultivators may be set to run shallow or deep.

In a standard 30, located upon the frame-work, a cam-lever 31 is pivoted, as at 32, and from the same depends a chain 33, which is connected to the depending bars 18. This completes the construction, with the exception of the driver's seat 34.

The operation of the machine will at once be apparent, but may be briefly stated as follows; When going to the field for operation, the lever 31 is depressed and the cultivator-carrying-frame elevated out of contact with the ground. When the field has been reached, the lever is elevated, the cultivator-frame lowered, and the wheels 29 adjusted so as to give the desired depth of penetration. The machine being started, rotary motion is imparted to the cultivator-shaft in the manner heretofore described. The machine will be found extremely efficacious in thoroughly pulverizing the soil, and by reason of the alternating arrangement of the teeth, as shown in Fig. 2, every portion of the ground gone over is thoroughly cultivated. Lightness of draft is secured and further increased by reason of the teeth rotating and cutting in the direction of movement of the machine.

Having described my invention, what I claim is—

1. In a cultivator, the combination, with the

oblong frame, the axle for the same, the wheels
mounted on the axle, and a sprocket mounted
upon one of the wheels, of the depending stir-
rups mounted upon the side bars of the frame,
5 the inclined side bars pivoted at their front
ends to the stirrups and provided with bear-
ings near their rear ends, the rotatable shaft
21, mounted in bearings and between the same
rectangular in cross-section, the curved cul-
10 tivator-teeth alternately arranged and bolted
to the four faces of the shaft, the sprocket-
wheel on the end of said shaft, the chain belt
connecting the sprocket-wheel with that of
the ground-wheel, the keepers, the standards
15 mounted adjustably therein, and the wheels
journaled at the lower ends of the keepers,
substantially as specified.

2. In a cultivator, the combination, with the
oblong frame-work, the axle, the ground-
20 wheels, and the sprocket-wheel connected to
one of the latter, of the pivoted side bars 18,
having bearings, the rotatable shaft mounted
in the bearings, the curved cultivator-teeth

radiating from the shaft, a sprocket mounted
on the shaft, a chain connecting the same 25
with that of the ground-wheel, and means for
raising and lowering said side bars, substan-
tially as specified.

3. In a cultivator, the combination, with the
frame-work, the axle, and the ground-wheels, 30
of the pivoted side bars 18, having bearings,
the rotatable shaft mounted in the bearings,
the curved cultivator-teeth radiating from
the shaft, driving mechanism connecting one
of the ground-wheels with the rotatable shaft, 35
means for raising and lowering said side bars,
and the adjustable standards 27, carrying
wheels 29, substantially as specified.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 40
the presence of two witnesses.

SANFORD GASSER.

Witnesses:

WILLIAM C. MANNIS,
W. H. OAKLEY.