

No. 723,126.

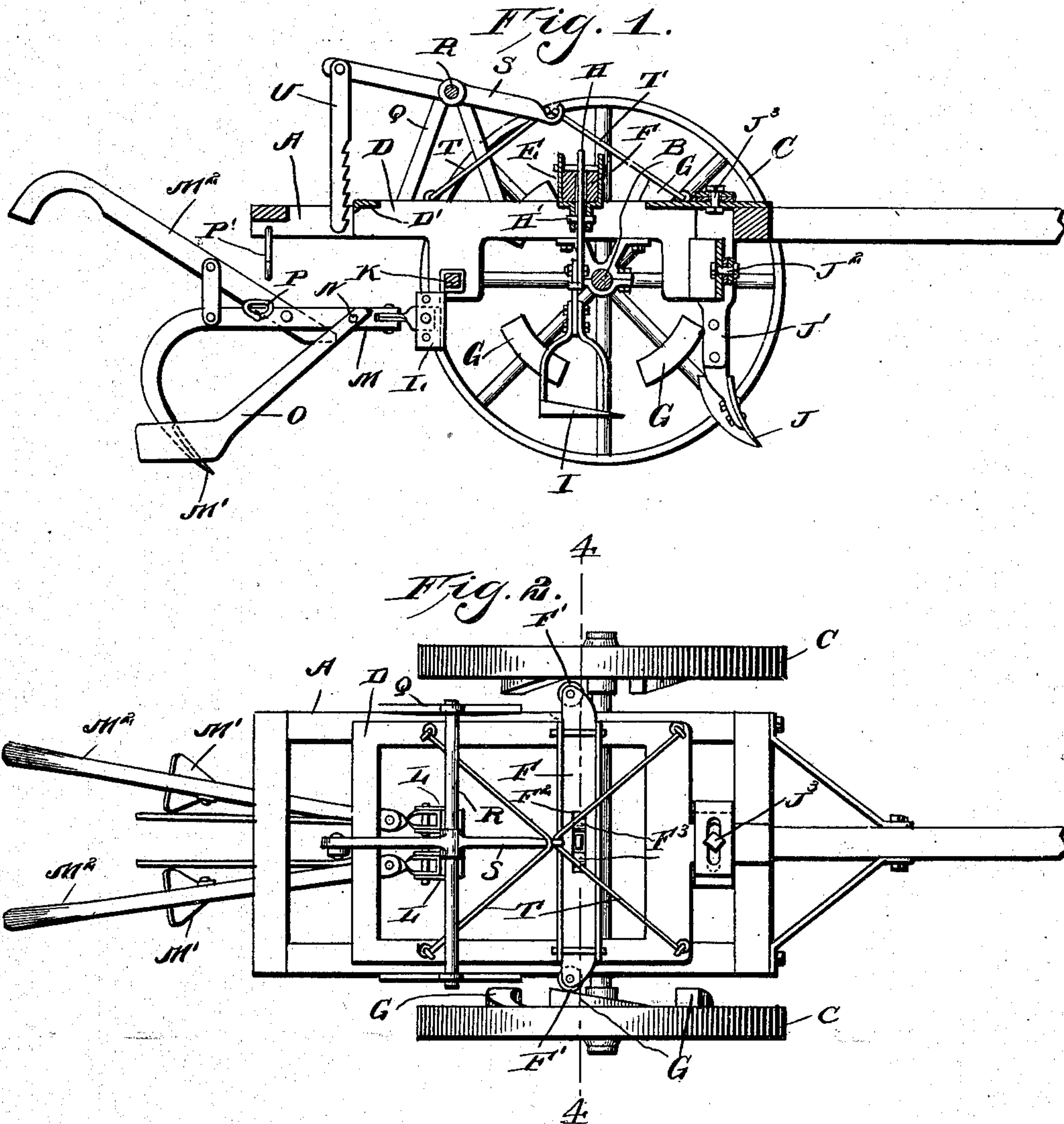
PATENTED MAR. 17, 1903.

M. A. BEARD.
COMBINED COTTON CHOPPER AND CULTIVATOR.

APPLICATION FILED APR. 9, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

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2 SHEETS—SHEET 2.

Fig. 3.

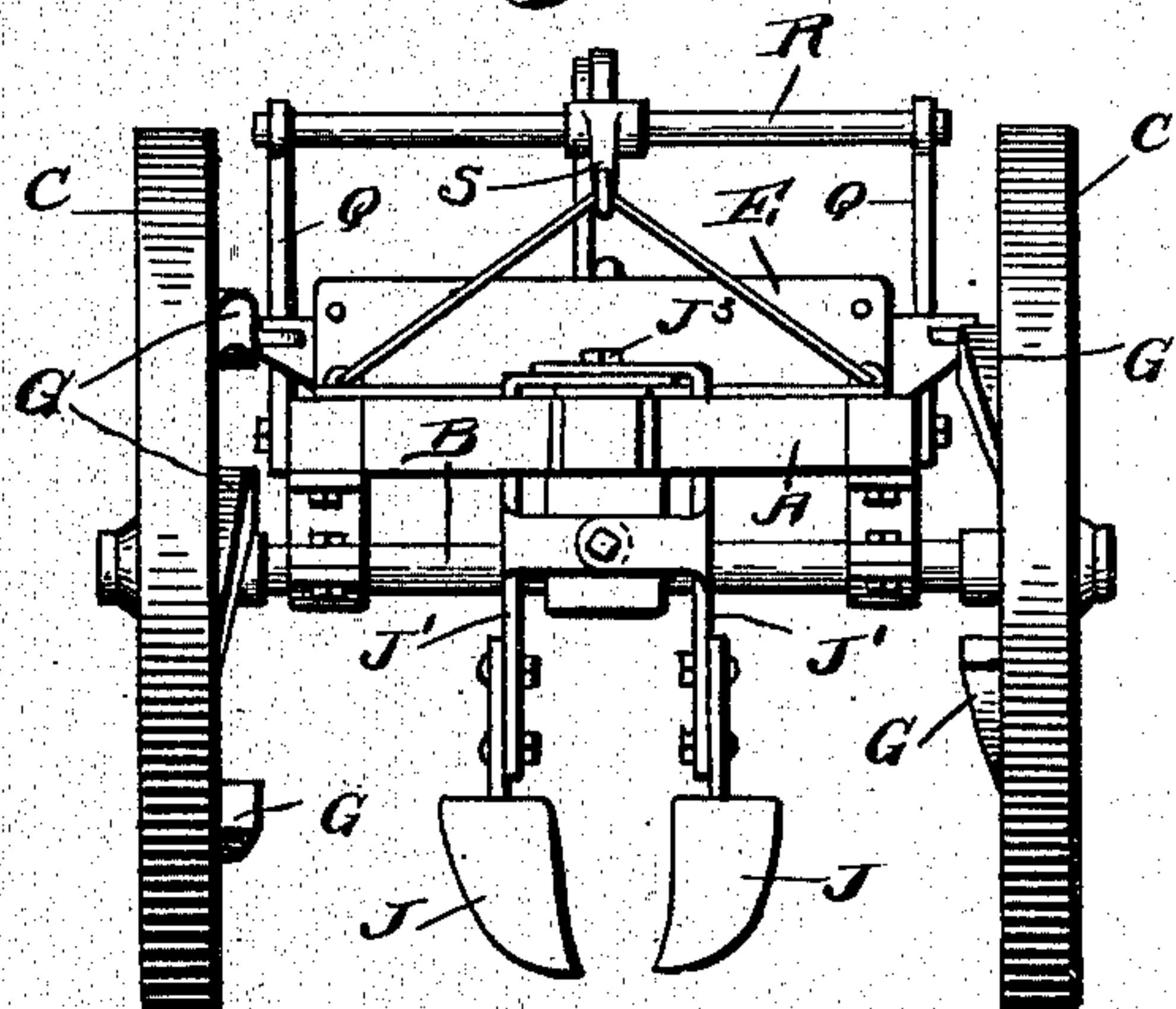


Fig. 4.

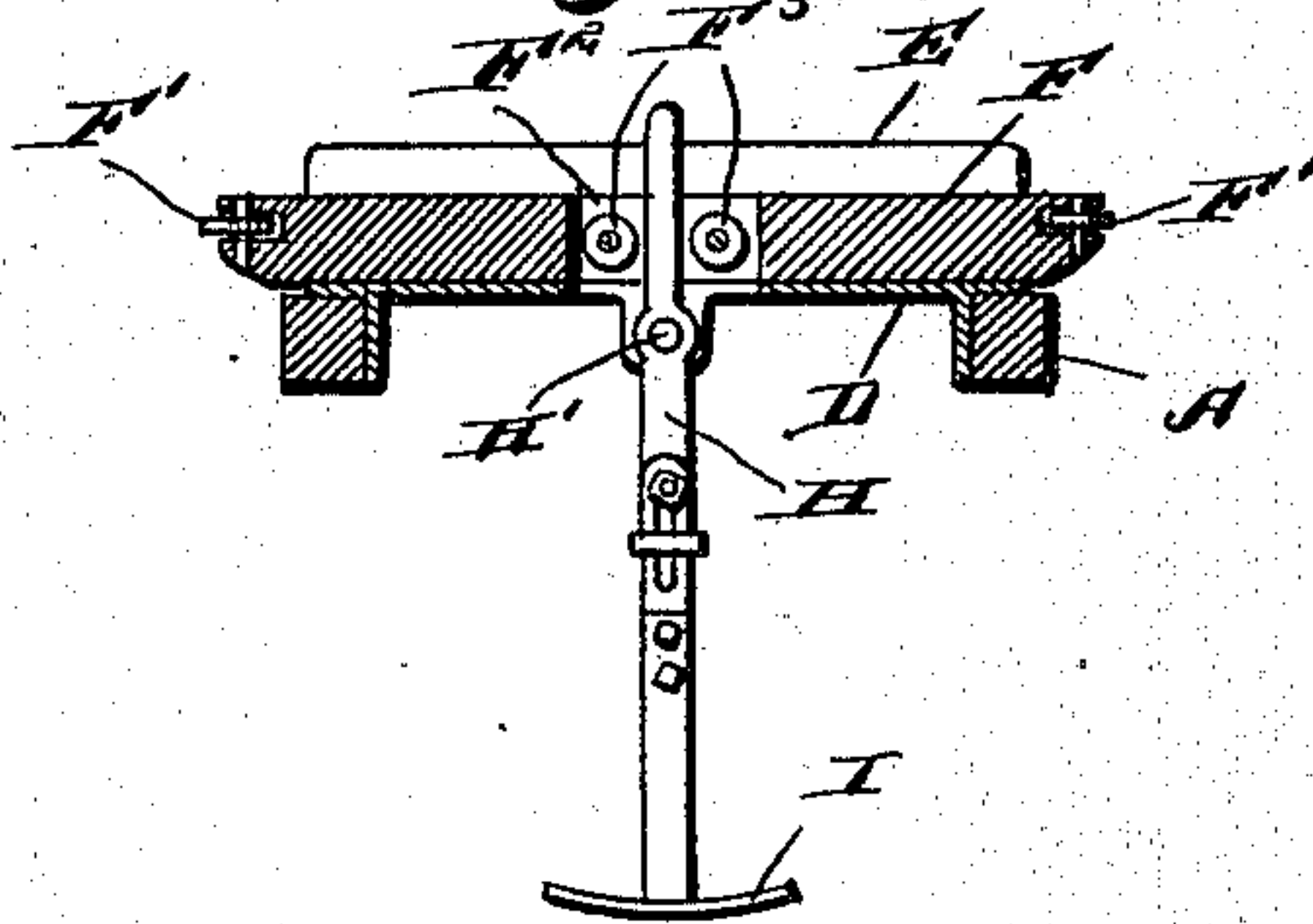


Fig. 5.

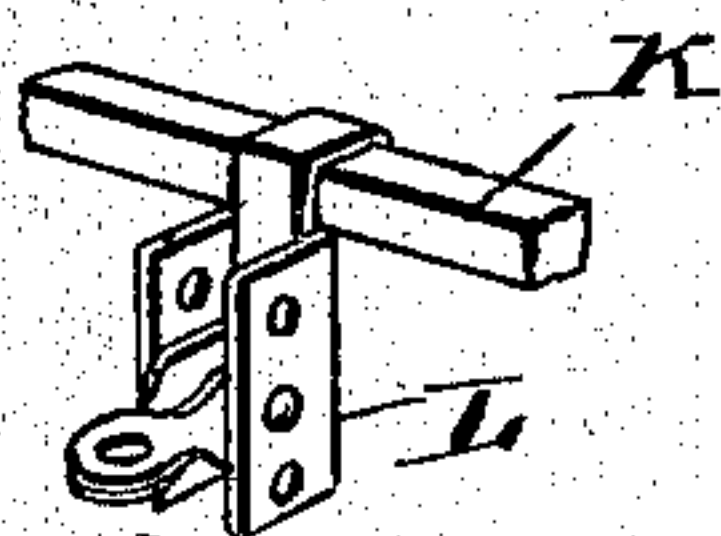
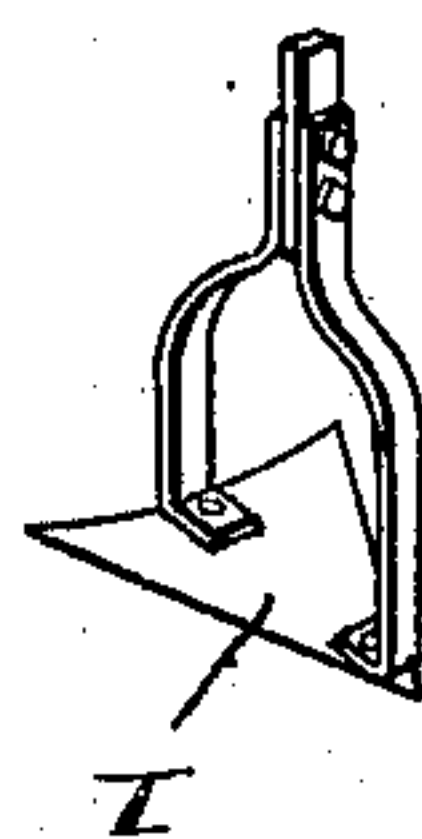


Fig. 6.



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UNITED STATES PATENT OFFICE.

MICHAEL A. BEARD, OF SPRINGHILL, LOUISIANA.

COMBINED COTTON CHOPPER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 723,126, dated March 17, 1903.

Application filed April 9, 1902. Serial No. 101,983. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL A. BEARD, a citizen of the United States, residing at Springhill, parish of Webster, and State of Louisiana, have invented a certain new and useful Improvement in a Combined Cotton Chopper and Cultivator, of which the following is a specification.

My invention relates to a new and useful improvement in combined cotton choppers and cultivators, and has for its object to provide a machine of this description by which the rows of cotton may be chopped into blocks and cultivated at the same time.

A further object of my invention is to so construct the machine that it will consist of comparatively few parts and be very durable in construction, efficient in action, and positive in working, and all of the operating parts of the machine may be thrown out of action when used for traveling over the road or in changing from one row to another.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a vertical longitudinal section of a machine; Fig. 2, a plan view; Fig. 3, a front elevation; Fig. 4, a section on the line 4 4 of Fig. 2, showing only the chopping-hoe and mechanism for operating the same. Fig. 5 is a perspective view of the clevis to which the plow or cultivators are attached; Fig. 6, a perspective view of the chopping-hoe.

A represents the main frame of the machine, which is supported upon the axle B, and upon each end of the axle are secured rigidly the traction-wheels C.

D is a movable frame which lies between the side bars of the main frame and is supplied with side flanges adapted to normally rest upon the side bars of the main frame and be supported thereby. To this movable frame are secured all the operating parts of the ma-

chine. To this movable frame D and extending laterally across the same is a channel or guideway E, in which rests a bar F, which bar is held within the channel so as to allow the same to slide back and forth laterally of the machine. In each end of the bar are journaled small friction-rollers F', and to the inner face or spokes of the wheels C are secured the blocks G, which have inclined surfaces formed thereon and are arranged in such a position on the wheels as to come in contact with the rollers F' of the bar F and give to said bar a lateral sliding motion. The blocks G on one wheel are staggered relative to the blocks upon the opposite wheel, so that the bar F is first caused to slide in one direction and then in the other alternately. In the middle of the bar F is formed a slot F², in which are journaled two small rollers F³.

H is a vertical bar journaled at H' to lugs extending downward from the movable frame D. The upper end of the bar H extends upward through the slot F² of the bar F and in between the two small rollers F³. Thus when the bar F is reciprocated the rollers F³ will come in contact with the bar H and cause said bar to oscillate to rock upon the pivot H'. To the lower end of the bar H is secured the cotton-chopper hoe I. This hoe is so secured to the bar H that the same may be adjustable vertically to a certain limit. The chopping-hoe I is formed triangular in shape, and its sides or beveled edges are sharpened, so that they strike the stalks of the cotton, which will exert a shredding action upon the same, so as to cut the same with a clean cut.

The number of blocks G to be placed upon the wheel will be determined by the size of the wheels and also the number of blocks to be formed in the rows of cotton. These blocks may be made adjustable radially of the spokes of the wheel, if so desired. Forward of the chopping-hoe and also secured to the movable frame D and depending therefrom are the scrapers J, each of which being secured to uprights J', which are pivoted together to a lug depending from the movable frame D at the point J². The upper ends of the uprights J' are bent at right angles, so as to lie horizontally, and are slotted and lie one above the other. A bolt J³ passes downward through the slots and also through

the movable frame D, and thus holds the up-
rights J' in position. When it is desired to
adjust the scrapers J so as to bring them
closer together or farther apart, the nut J³ is
loosened, and then the uprights J' may rock
upon the pivot J² to adjust the scrapers, so
as to bring them the desired distance apart,
and then by again tightening the nut J³ they
will be held in position.

At the rear of the movable frame and be-
hind the cotton-chopping hoe is a bar K, which
extends across the machine and is secured at
each end in lugs depending from the movable
frame D. To this transverse bar K are se-
cured the two clevises L, and to each of these
clevises is secured the forward end of the
plow-beams M. These plow-beams extend
rearward at an opposite angle to one another,
so that the plowshares M' secured thereto
will straddle the row of cotton and operate
upon each side of the same. Each plow-beam
has a handle M² secured thereto, and the op-
erator of the machine walks behind, holding
these handles, and thus regulating the depth
of the cut. Pivoted to each of the plow-
beams at the point N are fenders O, which
rest against the ground by gravity and lie in-
side of the plowshares M'. These fenders
also straddle the row of cotton and prevent
the dirt thrown upward by the plowshares
from covering the cotton. Each of the plow-
beams has secured thereto the loops P, and
depending from the main frame A of the ma-
chine are hooks P', and when it is desired
not to use the plow, such as when traveling
upon the road or changing from one row to
another, the plow-beams are raised up and
the loops P are hooked upon the hooks P'.

For the purpose of throwing the chopping-
hoe out of action and raising the scrapers out
of the ground when the machine is traveling
upon a road or changing from one row to an-
other I provide a standard Q, which arises
from the main frame A of the machine upon
each side, and journaled in the upper end of
this standard and extending entirely across
the machine is a rod R, which has secured to
it in the center the rock-bar S.

T is a pyramidal framework composed of
rods secured to each corner of the movable
frame D and extending upward and meeting
at a common point, at which point is hooked
or secured in any manner the forward end of
the rock-bar S. To the rear end of the rock-
bar S is pivoted a downwardly-depending
toothed bar U.

D' is the rear cross-bar of the movable frame
D, and when the operator desires to throw
the operating parts of the machine out of ac-
tion the bar U is pulled downward, which
will raise the forward end of the rocking le-
ver S, and thus raise the movable frame D
bodily above the main frame A. This will
bring the reciprocating bar F above the line
of travel of the blocks G, so that said bar
will not be acted upon, and will also raise
the scrapers J from out of the ground and

will still further raise the plows M. The
parts may be held in this raised position by
hooking the teeth of the toothed bar U un-
derneath the cross-bar D' of the frame D.

When preparing the land for the cotton, this
machine may be used for ordinary plowing by
removing the chopping mechanism and the
forward scrapers, and in place of the plows M
substitute plows of ordinary construction.

Of course I do not wish to be limited to the
exact construction here shown, as slight modi-
fications could be made without departing
from the spirit of my invention.

Having thus fully described my invention,
what I claim as new and useful is—

1. In combination with a machine of the
character described, a main frame, a main
axle supporting the main frame, traction-
wheels secured rigidly to each end of said axle,
a movable frame supported by the main frame,
a guide or channel formed transversely of the
movable frame, a bar arranged within said
guide or channel, beveled blocks secured to the
inside of the traction-wheels, the blocks upon
one wheel staggered relative to the blocks upon
the other wheel, said blocks adapted to come
in contact successively with the ends of the
bar so as to reciprocate the same, a cotton-
chopping hoe pivoted to the movable frame
underneath the reciprocating bar, a shank ex-
tending upward from the chopping-hoe and
connected with the reciprocating bar, sub-
stantially as and for the purpose specified.

2. In combination with a machine of the
character described, an axle, a traction-wheel
secured upon each end of said axle, a main
frame supported by the axle, a movable
frame supported by the main frame, means
for raising and lowering the movable frame
relative to the main frame, means for hold-
ing the movable frame in its raised position,
a transverse guide or channel formed with
the movable frame, a transverse bar arranged
within the guide or channel, rollers journaled
in each end of said bar, beveled blocks se-
cured upon the inner face of the traction-
wheels, the blocks upon one wheel staggered
relative to the blocks upon the other, the roll-
ers upon the end of the reciprocating bar ly-
ing normally within the path of travel of said
blocks so that the bar will be reciprocated
thereby, a vertical bar pivoted to the lugs de-
pending from the movable frame, the trans-
verse reciprocating bar provided with a slot,
the upper end of the vertical bar protruding
through said slot, a cotton-chopping hoe ad-
justably secured to the lower end of the ver-
tical bar, as and for the purpose specified.

3. In a machine of the character described,
an axle, a traction-wheel secured upon each end
of said axle, a main frame supported by said
axle, a movable frame supported by said main
frame, means for raising and lowering said
movable frame vertically relative to the main
frame, means for holding the movable frame
in the raised position, a transverse channel or
guide carried by the movable frame, a recipro-

5 eating bar adapted to slide within said channel or guide, rollers journaled in each end of said bar, beveled blocks secured to the inner face of each of the wheels, said blocks arranged at regular intervals, and the blocks upon one wheel staggered relative to the blocks upon the other, the rollers upon the ends of the reciprocating bar lying normally within the path of travel of said blocks, the reciprocating bar provided with a vertical slot in the middle thereof, rollers journaled within said slot, a vertical bar pivoted midway of its length to the movable frame at a point below the reciprocating bar, the upper end of the vertical bar extending through the slot in the

reciprocating bar and between the rollers, a cotton-chopping hoe adjustably secured to lower end of the vertical bar, said cotton-chopping hoe consisting of a triangular piece of metal, the forward end being pointed and the sides sharpened, as and for the purpose specified. 20

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

MICHAEL A. BEARD.

Witnesses:

AMAZIAH SMITH,
G. W. CAMP.