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Patented Dec. 24, 1901.

J. J. VICKERS.

COTTON CHOPPER ATTACHMENT FOR CULTIVATORS.

(Application filed Sept. 3, 1901.)

(No Model.)

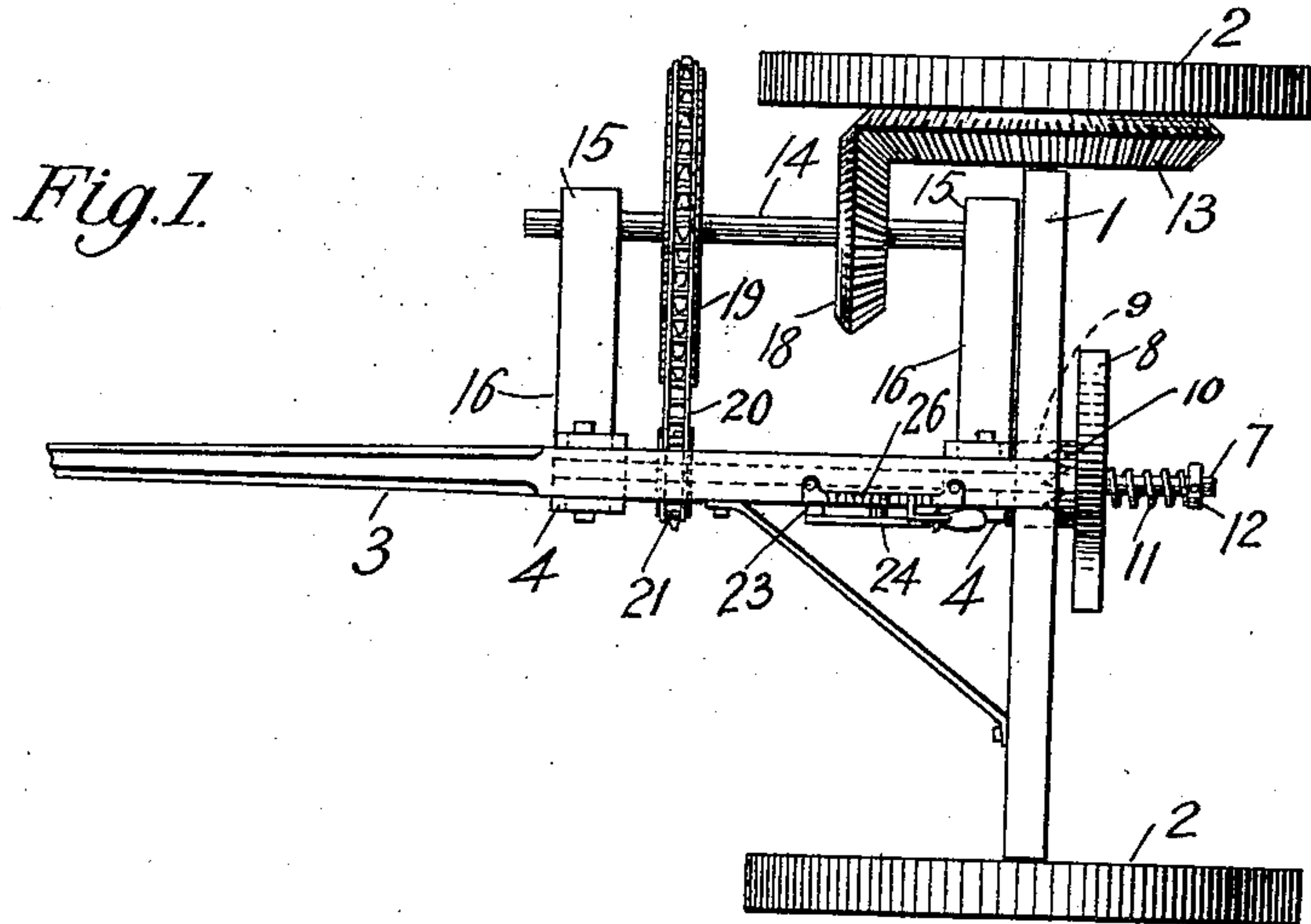


Fig. 2.

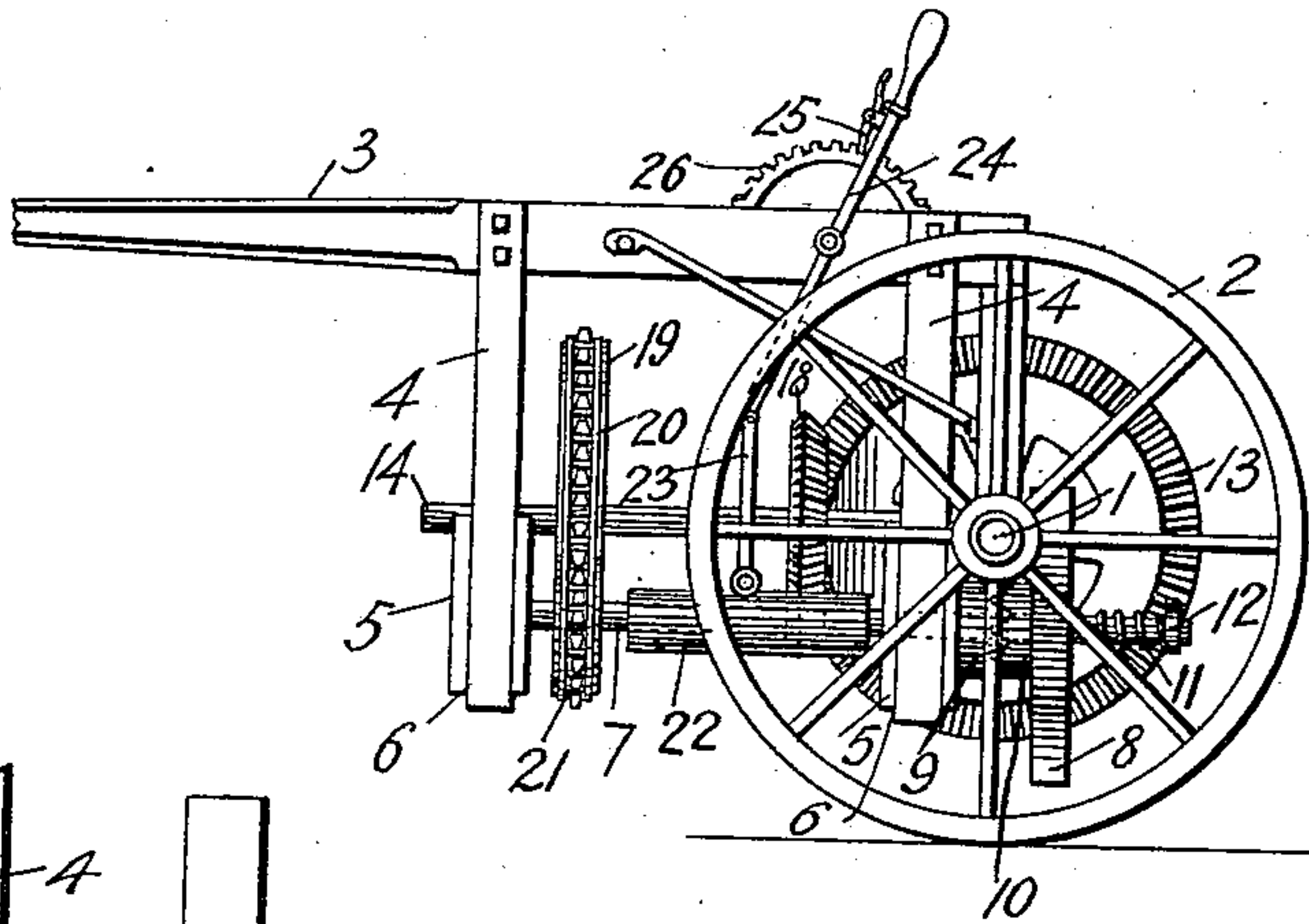
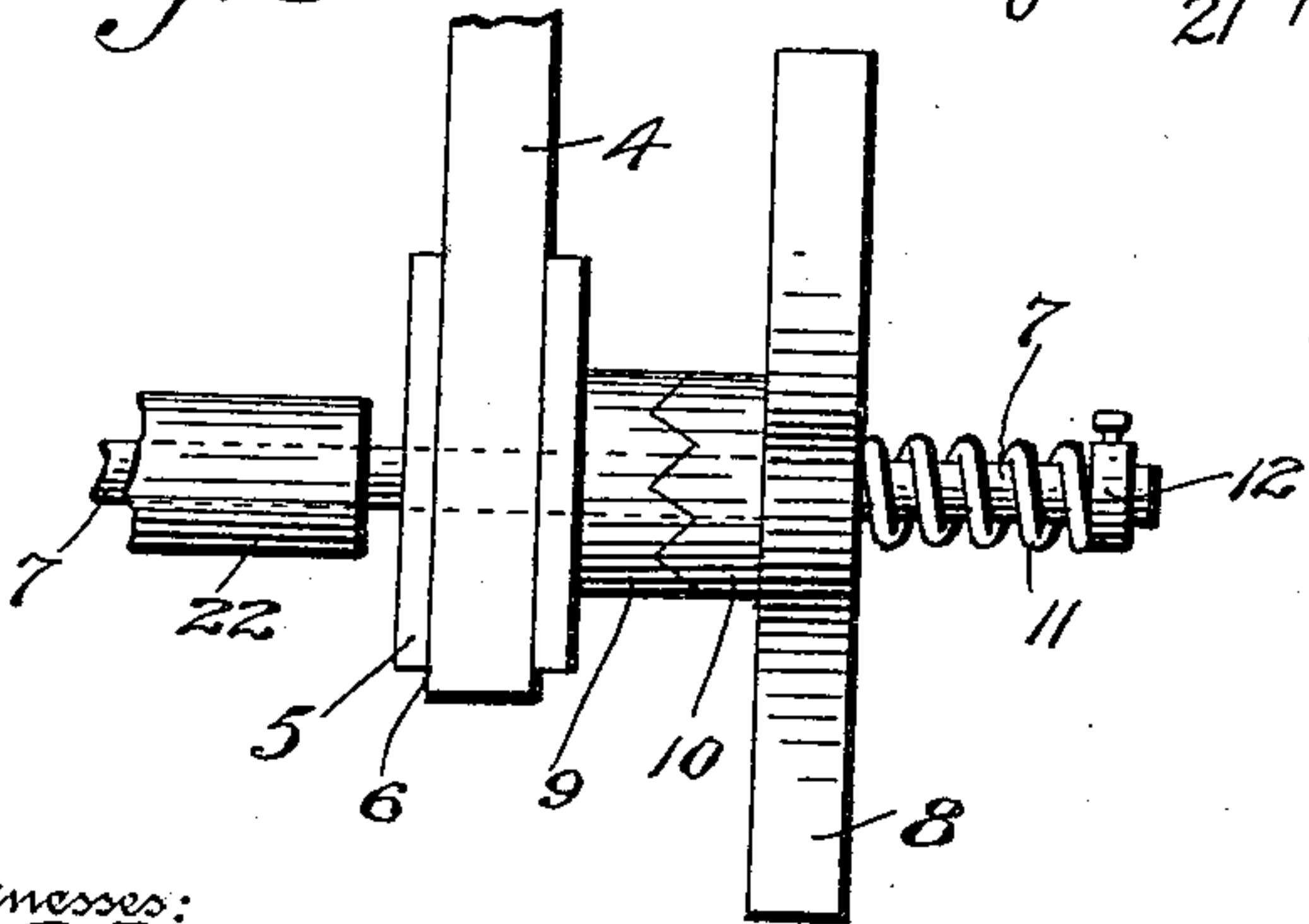


Fig. 3



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UNITED STATES PATENT OFFICE.

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COTTON-CHOPPER ATTACHMENT FOR CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 689,442, dated December 24, 1901.

Application filed September 3, 1901. Serial No. 74,129. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. VICKERS, a citizen of the United States, residing at Pittsburg, in the county of Camp and State of Texas, have invented certain new and useful Improvements in Cotton - Chopper Attachments for Cultivators; and I do 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 invention relates to cotton-chopper attachments for cultivators.

The object of the invention is to provide an attachment of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, easily applied to cultivators now in general use, and efficient in action.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view of a cultivator-frame and my invention applied thereto. Fig. 2 is a side view of the same, and Fig. 3 is a detailed view of the clutch members.

Referring more particularly to the drawings, 1 denotes the axle, 2 the supporting-wheels, and 3 the pole or tongue, of a cultivator, which may be of any well-known or approved construction and which in themselves form no part of the present invention.

4 denotes hangers rigidly secured to the pole and projecting downwardly, and 5 denotes blocks having vertical grooves 6 in their sides to engage and slide upon said hangers. 7 denotes a chopper-shaft, which is journaled in said blocks and extends rearward of the axle and supports the chopper-head 8, which is loosely journaled on said shaft, but is locked to rotate with the said shaft by clutch members 9 and 10, the former being fixed to said shaft and the latter to said chopper-head. A spring 11 is confined between the chopper-head and a washer 12, fixed to the rear extremity of said shaft, and exerts its energy to hold the clutch member of the chopper-head into engagement with the clutch member of

the chopper-shaft. The teeth of the clutch members are of such construction that should the chopper-blades meet with resistance, such as striking a rock or some other obstruction, the chopper-head will slide slightly rearward against the action of its spring and free its clutch member from the clutch member of the shaft, thereby preventing injury to the chopping-blades, and immediately after passing this obstruction the spring will force the chopper-head forwardly and its clutch member into engagement with the clutch member of the shaft.

13 denotes a beveled gear fixed to one of the cultivator-supporting wheels, and 14 denotes a shaft supported in bearings 15, secured to braces 16, connected to the pole, and has a beveled pinion 18, which meshes with the beveled drive-gear. This shaft has also fixed to it a sprocket-wheel 19, which is connected by a sprocket-chain 20 to a similar sprocket-wheel 21, fixed to the chopper-shaft. It will thus be seen that as the machine is drawn along the motion of one of the supporting-wheels of the cultivator will be transmitted to the chopper-shaft to drive the same. This shaft is made adjustable in any suitable manner, preferably by mounting upon it a loose sleeve 22, which is connected by a link 23 to a lever 24, pivoted to the pole and provided with a dog 25 to engage a segmental rack 26, mounted on the pole. By operating this lever the chopper-shaft may be raised or lowered, as occasion may require, and without throwing it out of gear.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the main supporting-frame, of a chopper-shaft provided with a chopper-head supported by said frame,

clutch members connecting the chopper-head to the chopper-shaft, and a spring arranged to hold the chopper-head in clutch connection with the chopper-shaft, but capable of yielding to permit the shaft to rotate independently of the chopper-head when the latter meets with obstructions, and means for rotating said chopper-shaft, substantially as set forth.

10 2. The combination with the main supporting-frame having hangers secured to the pole thereof, of blocks having vertical grooves to receive said hangers and freely movable within the hangers, a chopper-shaft journaled in
15 said blocks, a chopper-head carried by said shaft, a sleeve loosely mounted on said chopper-shaft, a lever pivoted to the main frame, a link connecting the lever with the sleeve, a segmental rack, and a dog carried by the lever to engage said segmental rack, substantially as set forth.

20 3. The combination with the main supporting-frame, hangers secured to the pole thereof, of blocks mounted in said hangers, a shaft

journaled in said blocks and provided with a 25 sprocket-wheel, a chopper-head loosely mounted on said shaft, clutch members, one secured to said shaft, and the other to the chopper-head, a spring arranged to hold the two clutch members in locked engagement, a sleeve 30 mounted on said shaft, an operating-lever, a link connecting the operating-lever with said sleeve whereby the said chopper-shaft may be elevated, a second shaft, a sprocket-wheel mounted thereon and connected with the 35 first-named sprocket-wheel by a sprocket-chain, a beveled drive-gear and a beveled gear fixed to the second-named shaft and in mesh with the beveled drive-gear, substantially as set forth. 40

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN J. VICKERS.

Witnesses:

J. A. COPPEDGE,
J. W. HILL.