

No. 702,502.

Patented June 17, 1902.

J. H. STANTON.
BEAN HARVESTER.

(Application filed Sept. 23, 1901.)

(No Model.)

Fig. 1.

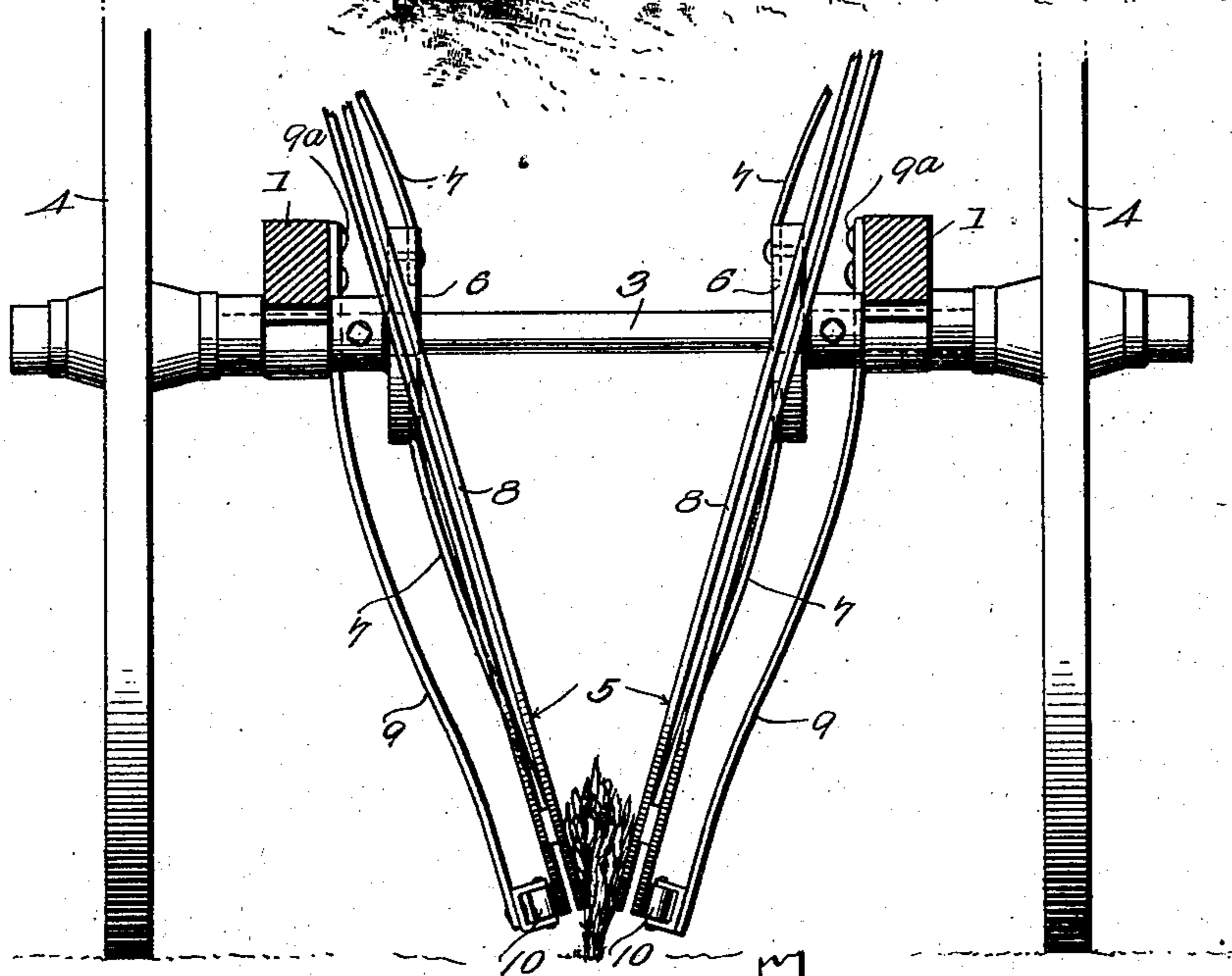
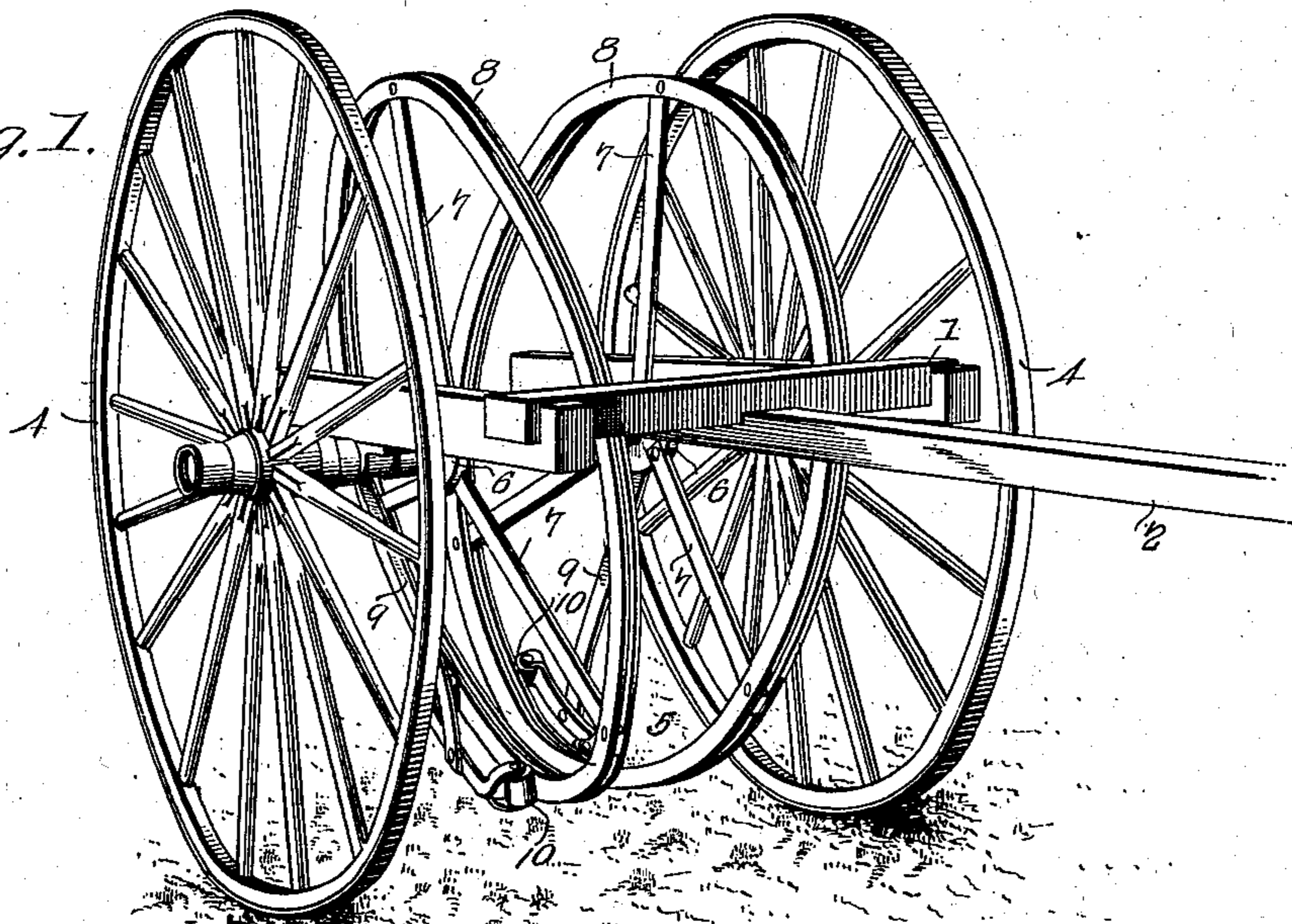
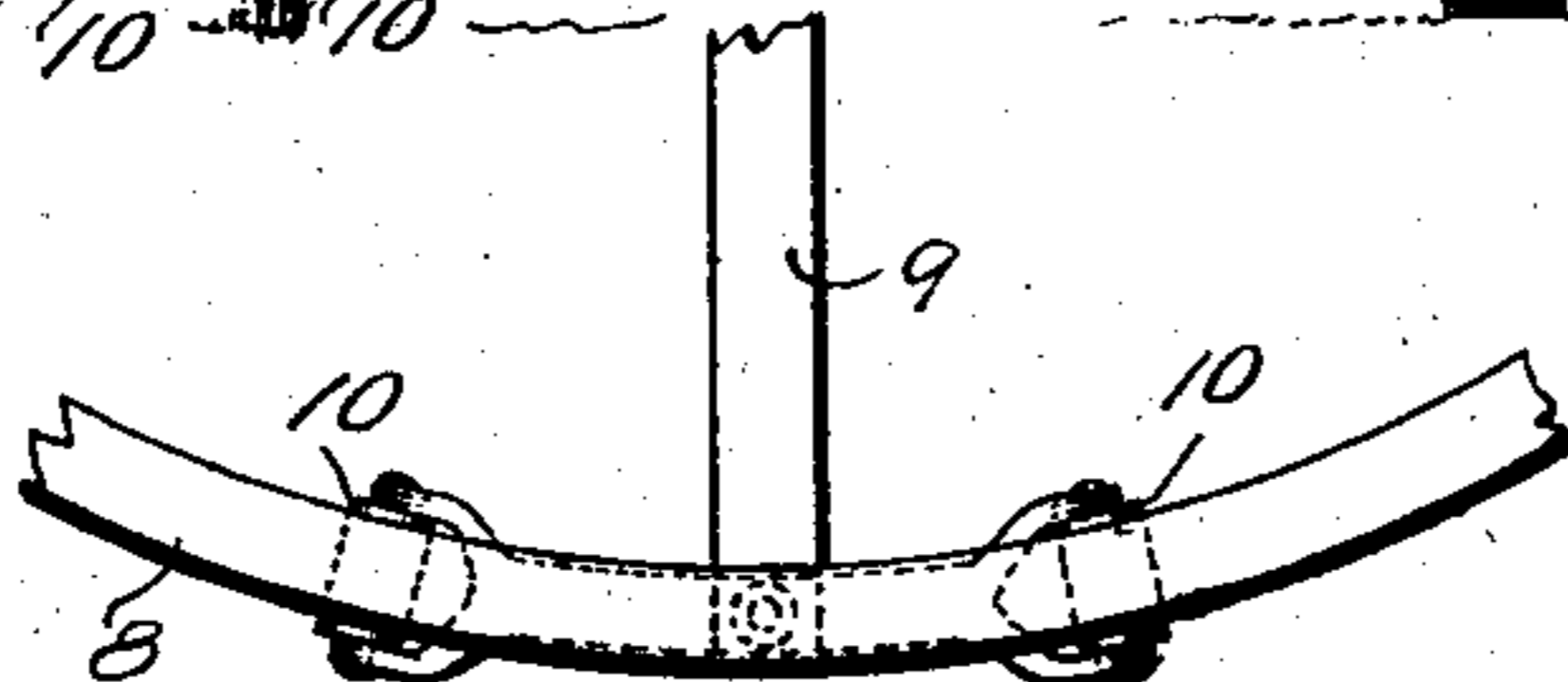


Fig. 2.

Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. STANTON, OF FRANKLIN, OHIO.

BEAN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 702,502, dated June 17, 1902.

Application filed September 23, 1901. Serial No. 76,273. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STANTON, a citizen of the United States, residing at Franklin, in the county of Warren and State of Ohio, have invented a new and useful Bean-Harvester, of which the following is a specification.

My invention is an improved harvester for beans, peas, and the like adapted to pull the plants up by the roots; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a bean-harvesting machine embodying my improvements. Fig. 2 is a rear elevation of the same, partly in section. Fig. 3 is a detail view.

My invention consists, essentially, of a pair of revoluble pulling elements adapted for universal angular movement, in combination with means to tilt or incline the same, so that their lower sides converge, and whereby the said elements when driven astride of a plant engage the same and in turning uproot and raise the plant from the ground.

In the embodiment of my invention here shown I employ a frame 1, which is provided with means, as a tongue 2 or shaft, whereby it may be drawn, and which frame is mounted on a revoluble axle 3, provided with ground-wheels 4 for rotating the axle. On the axle and revoluble therewith are a pair of revoluble pulling elements 5, which are here shown as of wheel-like construction, comprising hubs 6, secured on the axle 3, spring-spokes 7, and rims 8, connected to the spokes. Hence the revoluble pulling elements are adapted for universal angular movement with relation to the revoluble axle, and the same may have their lower sides drawn toward each other, as shown, against the tendency of the spring-spoke 7 to keep the rims of the said revoluble pulling elements parallel with each other and at right angles to the axle-shaft. Within the scope of my invention, however, the said revoluble pulling elements may be otherwise constructed, and I do not limit myself in this particular. To incline or tilt the rims of the revoluble pulling elements, so that the same may be caused to converge downwardly in the

form of my invention here shown, I employ spring-arms 9. The same are here shown as having their upper ends attached to the sides of the frame, as at 9^a, and are provided at their lower ends with antifriction-rollers 10, which bear against the outer sides of the rims of the revoluble pulling elements, at the lower sides thereof. While the said spring-arms press the lower sides of the rims of the revoluble pulling elements toward and keep the same normally in contact with each other, said spring-arms are adapted to yield to allow the lower sides of the rims of said revoluble pulling elements to move from each other when an obstruction gets between them and to adapt them to engage the plants from opposite sides and to press the said revoluble pulling elements so firmly against opposite sides of the plants that the latter will by the rotation of said revoluble elements be drawn out of the ground and elevated for a slight distance by said revoluble pulling elements, and it will be understood that the said plants after being pulled up will be released on the rear sides of said revoluble pulling elements.

Any other suitable means may be employed in lieu of the spring-arms for tilting or inclining the revoluble pulling elements, and I do not limit myself in this particular.

In practice I will employ a suitable elevating mechanism, which will be carried by the frame and onto which the plants will be discharged by the pulling elements, and I may also employ a suitable receiver to which the plants will be conveyed by said elevator.

Inasmuch as my improved harvesting-machine grasps the vines near the ground and lifts the same the vines are not shaken laterally and such loose beans as may be on the vines are not shaken and dropped therefrom, but are saved.

Having thus described my invention, I claim—

1. In a harvester of the class described, a pair of revoluble pulling elements adapted for universal angular movement, in combination with means to incline the same so that their lower sides converge, substantially as described.

2. A pair of revoluble pulling elements adapted for universal angular movement, in

combination with yielding means to incline the same so that their lower sides converge, substantially as described.

3. In a harvester of the class described, a
5 pair of revoluble pulling elements comprising rims and spring-supporting spokes therefor, whereby the said rims are adapted for universal angular movement, in combination with means to incline the same so that their lower
10 sides converge, substantially as described.

4. In a harvester, of the class described, a pair of flexible revoluble pulling elements adapted for universal angular movement, in combination with means to incline the same
15 so that their lower sides converge, substantially as described.

5. In a harvester of the class described, a pair of flexible revoluble pulling elements having rims adapted for universal angular movement, the said rims forming jaws for en- 20 gaging the plants and lifting the same, in combination with springs bearing against the outer sides of said rims to incline the same so that their lower sides converge, substantially as described. 25

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

JOHN H. STANTON.

Witnesses:

P. H. RUE,

MARGARET MCCARTHY.