

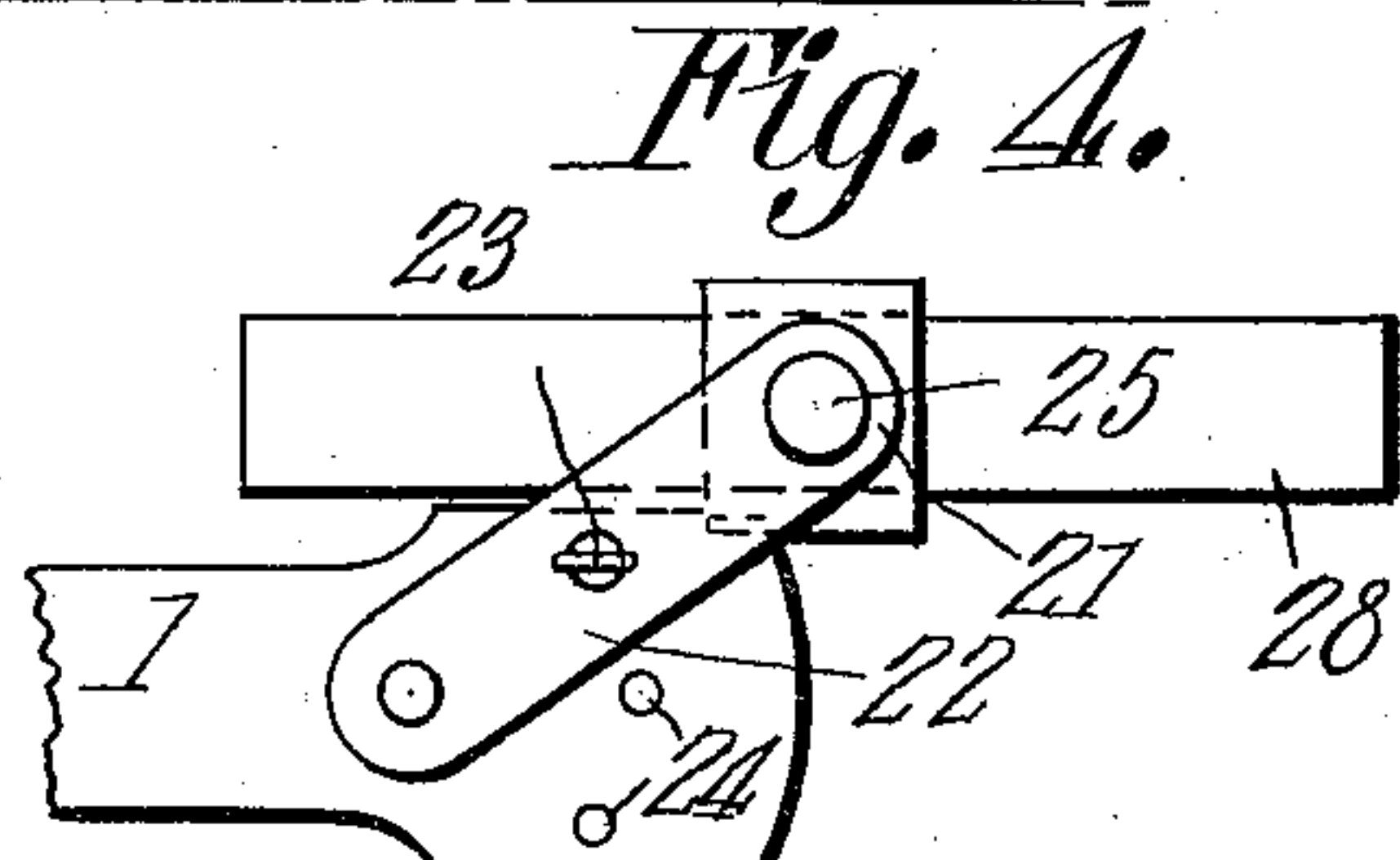
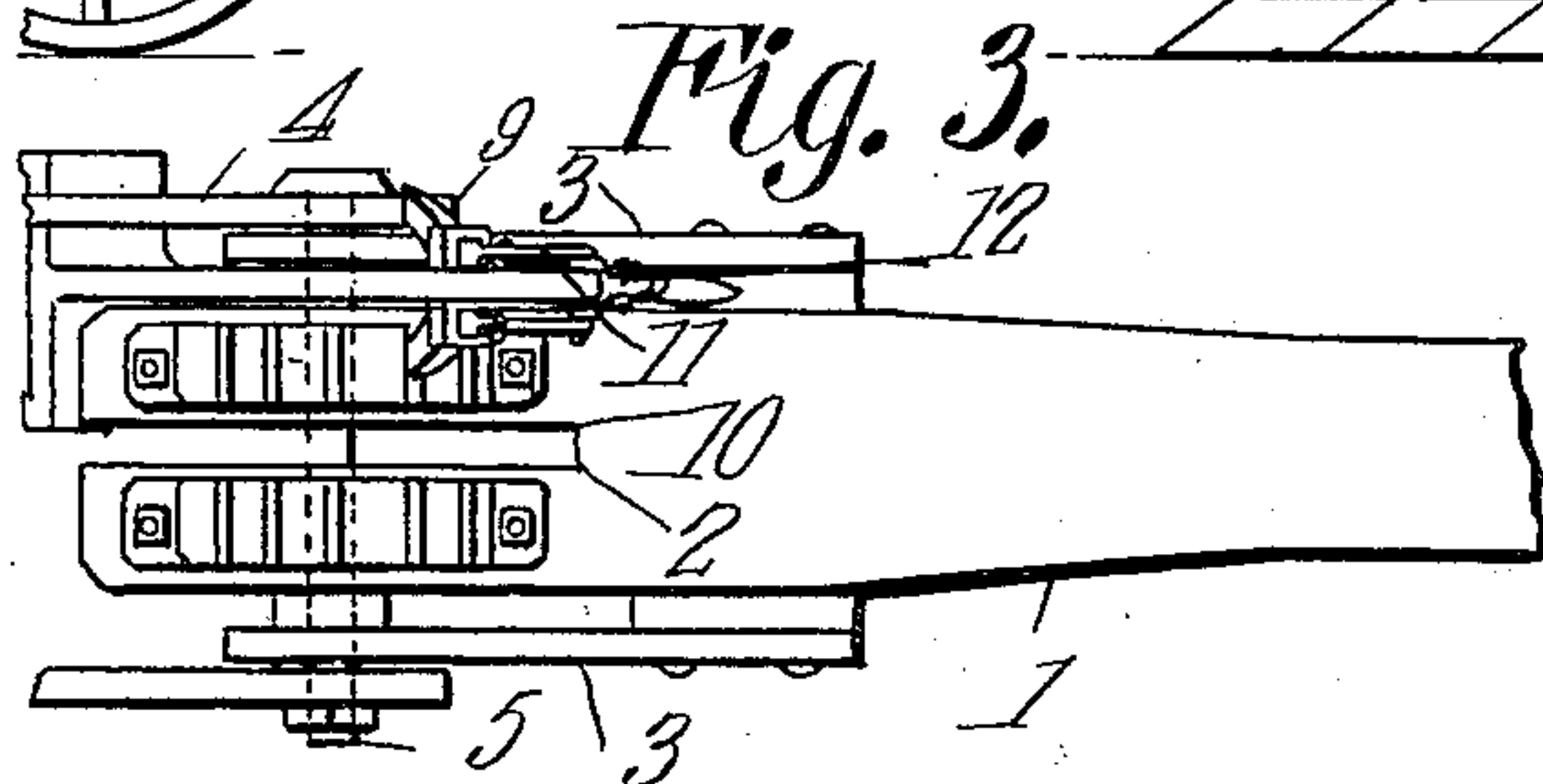
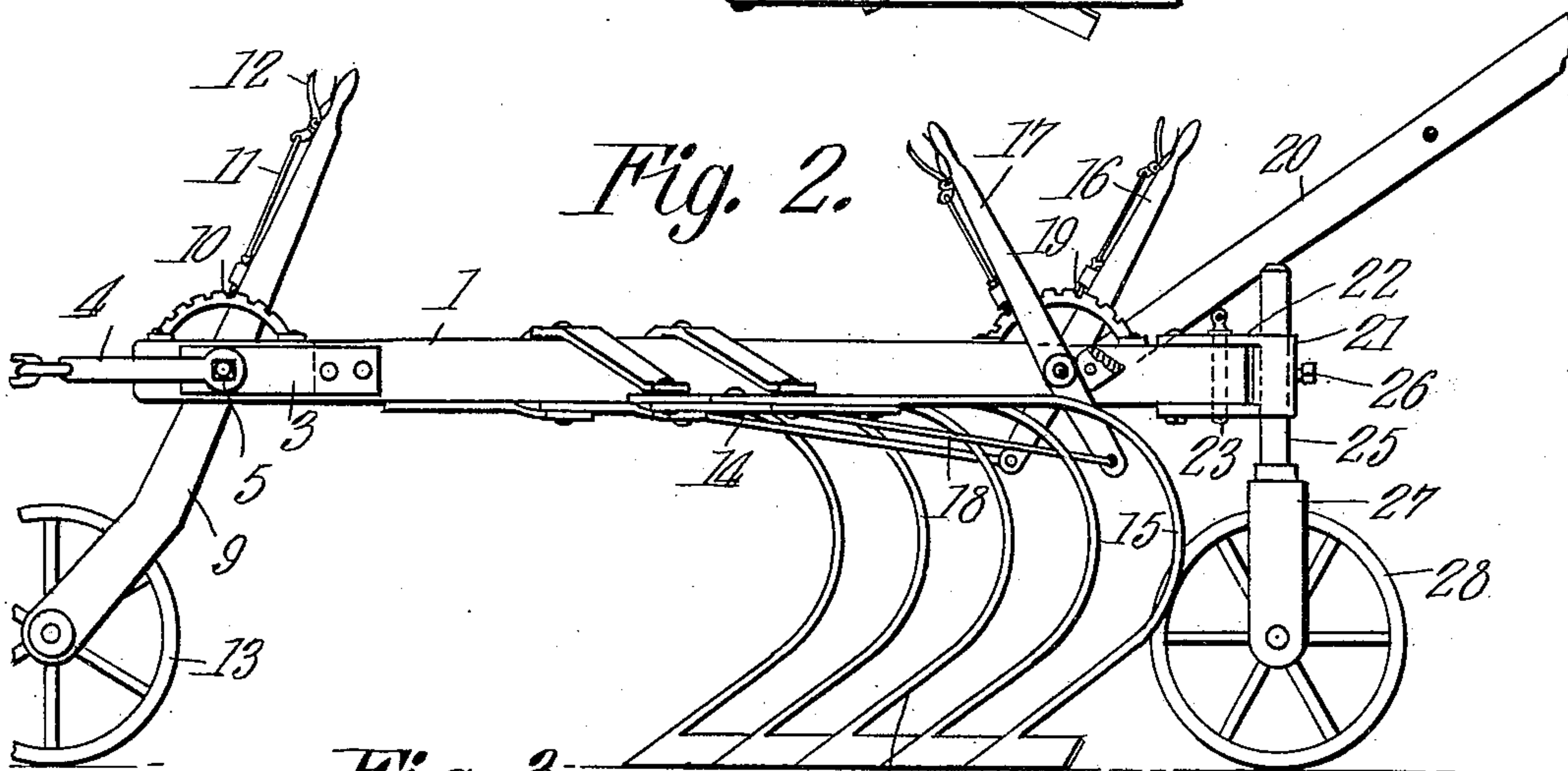
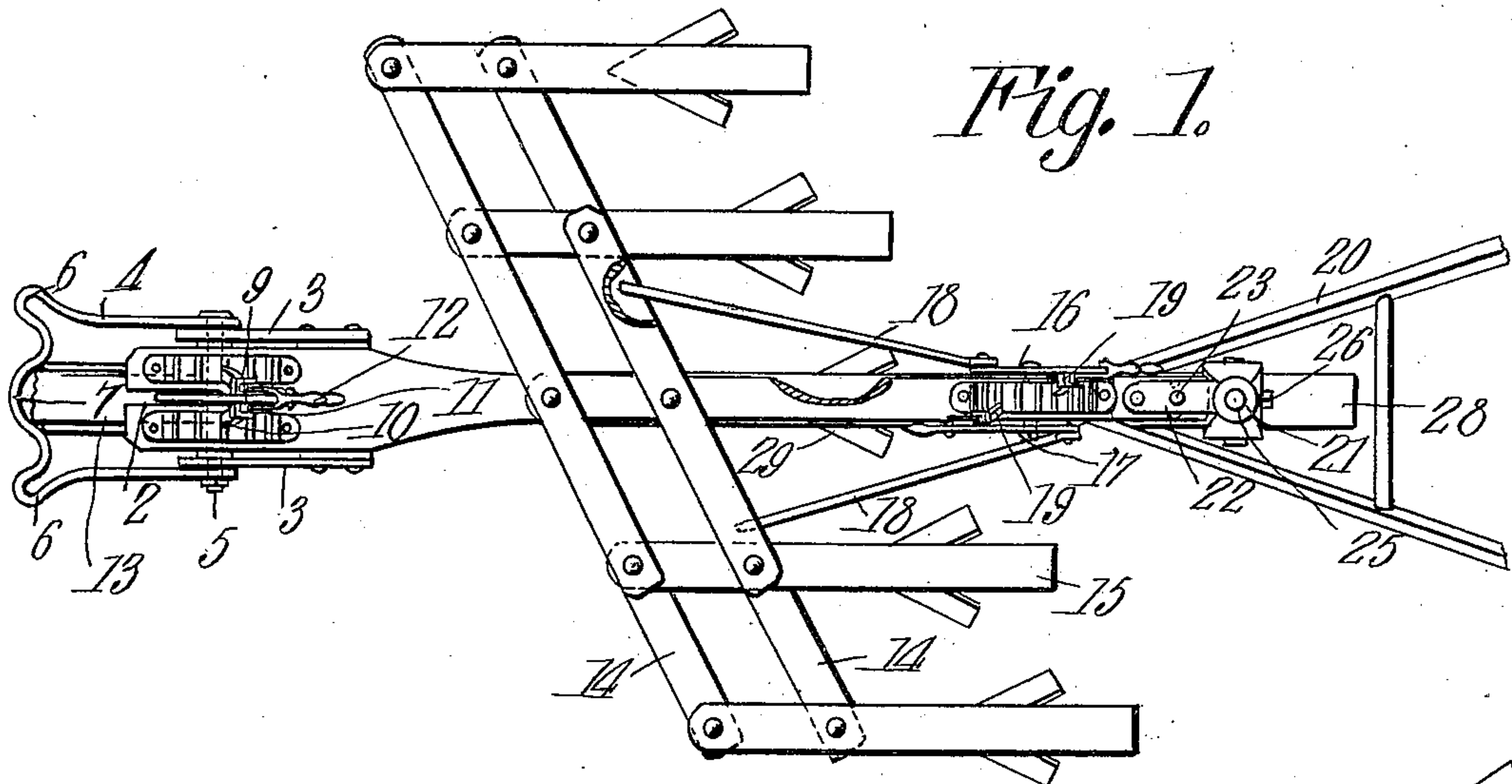
No. 860,687.

PATENTED JULY 23, 1907.

M. H. NICHOLSON.

CULTIVATOR.

APPLICATION FILED APR. 20, 1907.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MATTHEW H. NICHOLSON, OF TYLER, TEXAS.

CULTIVATOR.

No. 860,687.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed April 20, 1907. Serial No. 369,312.

To all whom it may concern:

Be it known that I, MATTHEW H. NICHOLSON, a citizen of the United States, residing at Tyler, in the county of Smith and State of Texas, have invented a new and useful Cultivator, of which the following is a specification.

This invention has relation to cultivators and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a cultivator of simple and durable construction which is provided with means whereby the beam may be easily and readily raised or lowered as desired and which is so equipped that the draft animal while hitched to the cultivator may travel at one side or the other of the row of plants while the beam is passing over the row and the implement is used as a straddle row cultivator.

The beam of the cultivator is supported upon wheels which may be adjusted to one side or the other for passing along the side of the row.

In the accompanying drawing:—Figure 1 is a top plan view of the cultivator. Fig. 2 is a side elevation of the same. Fig. 3 is a top plan view of the forward end of the beam of the cultivator, and Fig. 4 is a top plan view of the rear end of said beam.

The cultivator consists of the beam 1 which is provided at its forward end with a centrally disposed slot 2. The plates 3, 3 are attached to the sides of the beam 1 at the forward end thereof and are spaced from the said beam. The clevis 4 is of peculiar configuration and is pivoted at the point 5 to the said beam 1. The said clevis is provided with the eyes 6, 6 which are located upon opposite sides of the beam 1 and the said clevis is also provided with the curved portion 7 which is located between the said eyes 6, 6. The gear segments 8 are attached to the forward end of the beam 1 and are located at the opposite side of the slot 2. The lever 9 is fulcrumed upon the same bolt that pivotally attaches the clevis 4 to the beam 1. The lever 9 is provided upon each side with a pawl 10 and the links 11 connect the said pawls with the handle grip 12 which is pivoted to the said lever. The lever may be mounted in the slot 2 in which instance each of the said pawls 10 will engage one of the gear segments 8 or the said lever may be shifted to either side of the beam 1 and inserted in the space between the side of the lever and the plate 3, in which instance, but one of the pawls 10 will engage one of the gear segments 8. The ground wheel 13 is journaled for rotation at the lower end of the lever 9. The arms 14 are pivoted at their inner ends to the beam 1 and the standards 15 are pivotally connected to the said arms. The gear segment 16 is mounted upon the rear portion of the beam 1 and the levers 17 are fulcrumed to the opposite sides of the beam 1 adjacent the gear segment 16.

The arms 14 are arranged in sets located upon oppo-

site sides of the beam 1 and a link 18 connects each set of arms 14 with the lower end of one of the levers 17. Each lever 17 is provided with a spring actuated pawl 19 for engagement with the gear segment 16. The handles 20 are attached to the beam 1 in the usual manner. The vertically disposed bearing 21 is provided with the parallel arms 22 which receive between them the rear end of the beam 1 and which are pivotally attached to the said beam. The said arms 22 may be disposed in alinement with the longitudinal axis of the beam 1 or at an angle to the said axis. Such adjustment is accomplished by means of the bolt 23 which may pass through any one of the series of perforations 24 provided in the rear portion of the beam 1 and through suitable perforations provided in the arms 2. The elongated shaft 25 passes through the bearing 21 and may be turned axially therein or slipped longitudinally therethrough. When in properly adjusted position the said shaft is fixed with relation to the bearing 21 by means of a set screw 26 or its equivalent. The yoke 27 is attached to the lower end of the shaft 25 and the ground wheel 28 is journaled in the said yoke. The removable standard 29 is attached to the under side of the beam 1 and is located between the standards 15 carried by the arms 14. The standards 15 and 29 may be provided with any suitable style of ground engaging teeth or plates.

From the foregoing description it is obvious that by manipulating the levers 17 the arms 14 may be pitched at any desired angle with relation to the beam 1. When it is desired to use the implement as a straddle row cultivator the standard 29 is removed and the arms 22 of the bearing 21 are inclined to one side or the other of the beam 1 and secured in such adjusted position by means of the bolt 23 passing through one of the perforations 24 as above described. Also the lever 9 is shifted into the space between the plate 3 on the same side of the beam 1 as that to which the bearing 21 has been shifted, and the side of the said beam, when the ground wheel 13 is also located to the side of the beam 1. The swingletree of the draft animal is then connected with the eye 6 lying upon the same side of the beam 1 as the said ground wheel. Thus the draft animal may travel at the side of a row of plants as will also the ground wheel 13 and 28 but the beam will move over the top of the row of plants and the standards 15 will pass along the row of plants at the opposite side thereof. Thus a straddle row cultivator is provided. It is obvious that the ground wheels 13 and 28 may be shifted to travel at either side of the beam 1 and also that the draft animal may be attached to the clevis 4 at either side of the beam 1. By shifting the shaft 25 longitudinally and by manipulating the lever 9 the beam 1 may be raised or lowered as desired and thus it is possible to so elevate the beam 1 that the earth-engaging members carried by the standards 15 and 29 will escape

the surface of the ground and thus the implement may be readily transported from field to field or along a road without damage to the surface thereof or parts of the implement.

5 Having described my invention what I claim as new and desire to secure by Letters-Patent is:—

10 In a cultivator, a beam, a laterally adjustable wheel supporting the rear end thereof, the forward end of the beam being centrally slotted, plates attached to the forward portion of the beam and being spaced from the same, gear segments located upon the beam at the opposite sides

of the slot therein, a lever adapted to be fulcrumed to the beam in the slot thereof or between the beam and said plates, a spring actuated pawl carried by the lever for engagement with the gear segments and a wheel journaled to said lever. 15

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

MATTHEW H. NICHOLSON.

Witnesses:

JOE HERRING,

W. W. HERRING.