No. 694,213. Patented Feb. 25, 1902.

J. C. STARK.

LAND ROLLER.

(Application filed June 8, 1901.)

(No Model.) 2 Sheets—Sheet 1.

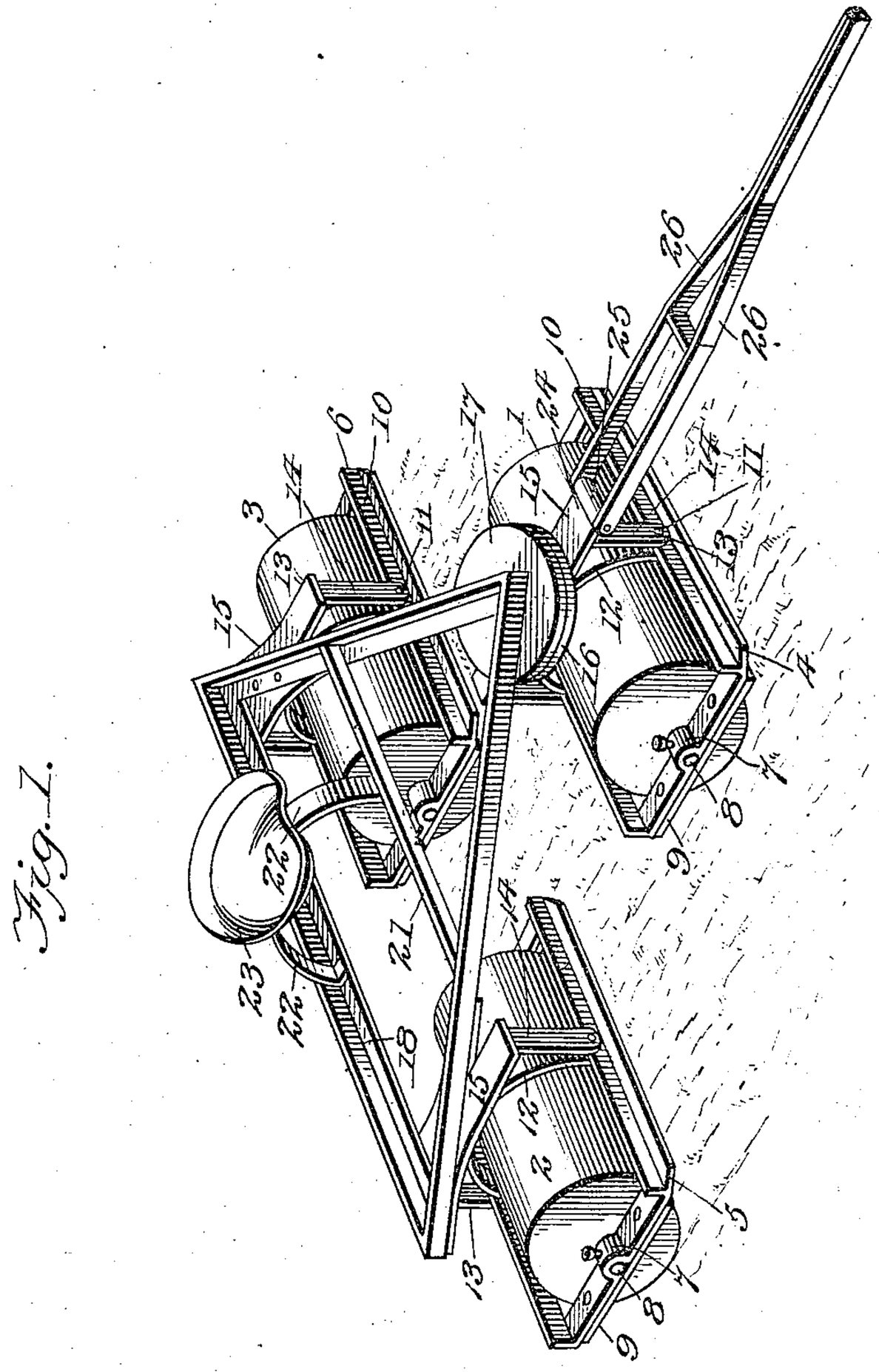

Fig. 1.

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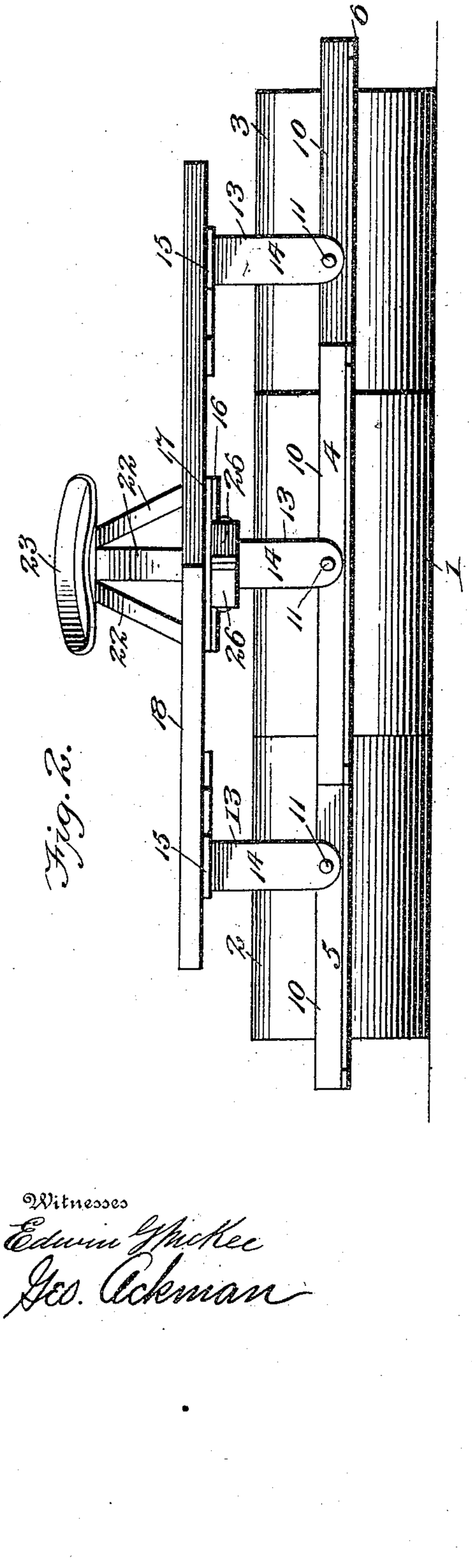

Fig. 2.

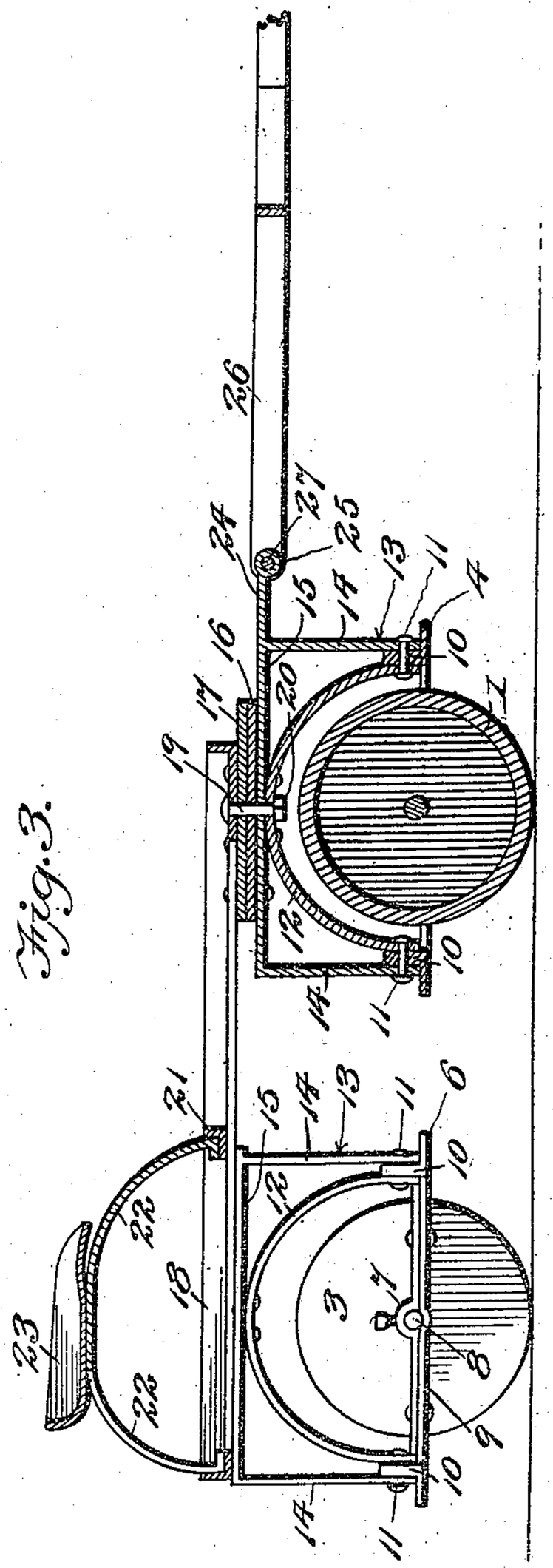

Fig. 3.

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UNITED STATES PATENT OFFICE.

J. CARROLL STARK, OF HAMILTON, ILLINOIS

LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 694,213, dated February 25, 1902.

Application filed June 8, 1901. Serial No. 63,795. (No model.)

To all whom it may concern:

Be it known that I, J. CARROLL STARK, a citizen of the United States, residing at and whose post-office address is Hamilton, in the county of Hancock and State of Illinois, have invented new and useful Improvements in Land-Rollers, of which the following is a specification.

My invention relates to land-rollers; and its primary object is to produce a machine which will more evenly and thoroughly roll farm land and lawns than heretofore produced.

In the construction of this roller the several rolls are pivotally attached to a framework, whereby each roll may lie easily upon the ground and move independently of the other, thereby adapting itself to the undulations of the ground.

In describing my invention reference is made to the accompanying drawings, in which like numerals indicate corresponding parts in the several views.

Figure 1 is a view in perspective of my improved land-roller complete. Fig. 2 is a front elevation view thereof, and Fig. 3 is a central vertical longitudinal view of my invention.

Referring to the drawings by numerals, 1, 2, and 3 designate three rolls arranged in triangle relation to each other and at such suitable distance from each other that the front roll may turn on its center without striking the rear rolls.

4, 5, and 6 represent oblong rectangular frames in which the rollers are journaled, and 7 the bearings for horizontal shafts 8, passing into the center of the rolls. The bearings 7 are formed in the ends of the frames 4, 5, and 6 by having the central portions thereof bent to form substantially a semicircular recess. Metallic strips 9 are secured to the under side of the ends of the frames and extend across the open ends of the bearings, thereby preventing accidental displacement of the shaft. Upon the upper side of the front and rear of each frame are arranged upwardly-projecting ribs 10. Intermediate of the ends of each of the ribs is provided an opening for a pivot 11, which also passes through openings in the lower ends of a yoke which secures the rolls to the machine-frame. The yokes are arranged above the roll-frames 4, 5, and 6, at right angles thereto, and comprise two frames 12 and 13. The frames 12 are arranged within the frames 13 and are arched so as to conform to the periphery of the rolls, and their ends terminate on the inner side of the rib 10, adjacent to the opening therein. The outer frames 13 of the yoke comprise a cross-bar 15, to which on its under side the arched frame 12 is secured, and pending arms 14, the lower ends of which lie on the outer side of the rib 10, adjacent to the opening therein. The roll-supporting frame is mounted upon the pivot 11, which joins it to the yoke-frames 12 and 13, thereby allowing the roll-frames 4, 5, and 6 to vibrate upon their pivots and permitting the rollers 1, 2, and 3 to adjust themselves to any unevenness of the ground. To the cross-bar 15 of the yoke of the front or steering roll is secured a bearing-disk 16, which underlies a similar disk 17, secured to the under side of the machine-frame 18, to which the roll-supporting frames are secured. Through an opening in the disks 16 and 17 is passed a king-bolt 19, which is held in position by a nut 20. The rear roll frames are rigidly secured to the frame 18 by bolts or rivets which pass through the triangular frame and thence through openings in the top cross-bar 15 of the frames 12 and 13. It is obvious that when the roller is turned the disks 16 and 17 will prevent any tilting of the machine.

The machine-frame 18 is preferably triangular in shape and its sides substantially L-shaped in cross-section. Extending transversely within this frame is a bar 21, which serves as a support for one of the spring-legs 22, upon which is mounted the driver's seat, designated by the numeral 23. The two rear seat-supporting legs are secured to the frame. It will be obvious that if I so desire I may mount upon this frame additional weight by placing a substantial bottom in the triangular frame and then placing the weight thereon. The ledge of the L-shaped sides of the frame serves as a support for the bottom, and the flanges hold the same in position.

The top cross-bar 15 of the front roll-supporting frame 13 is formed with an extension 24, which terminates in an eye 25. To this extension 24 is hinged a tongue, which con-

sists, preferably, of metallic strips 26. The rear ends of these strips extend on each side of the extension 22 and are provided with openings for the reception of a bolt 27, which passes therethrough and thence through the eye 25 in the extension 24. The front ends of the tongue gradually converge, so as to form a single tongue.

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

1. In a machine of the character described, the combination with a series of rolls arranged in triangle position, of oblong frames provided with journals for said rolls, ribs on said frames, each having an opening therein, yokes comprising arched inner frames and substantial ⊓-shaped outer frames mounted above said rolls and having their ends extending downward adjacent to and on each side of the said ribs, bolts engaging said ends and ribs, and means for connecting the rolls together.

2. In a machine of the character described, the combination with a series of rolls arranged in triangle position, of oblong frames provided with journals for said rolls, ribs on said frame, each having an opening therein, a yoke comprising an inner and outer frame mounted above each of said rolls, and having their ends extending downward adjacent to and on each side of the said ribs, bolts engaging the ends of the yoke-frames and ribs, and a hollow triangular frame for connecting said roll-yokes together.

In testimony whereof I affix my signature in presence of two witnesses.

J. CARROLL STARK.

Witnesses:
J. L. MILLER,
H. M. CUERDEN.