

J. W. INGLE.
DISK HARROW.

APPLICATION FILED SEPT. 14, 1903.

NO MODEL.

FIG. 1.

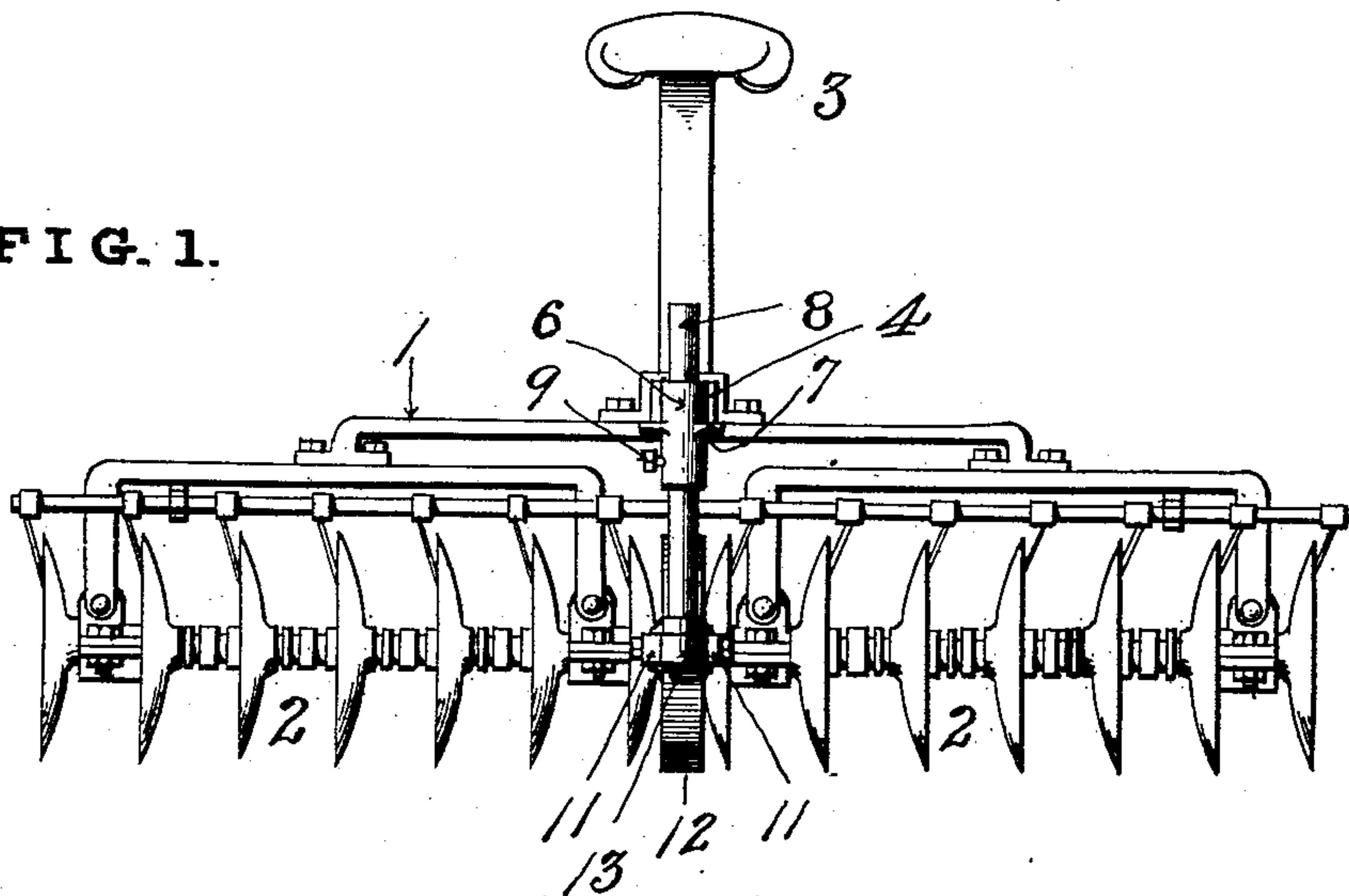


FIG. 2.

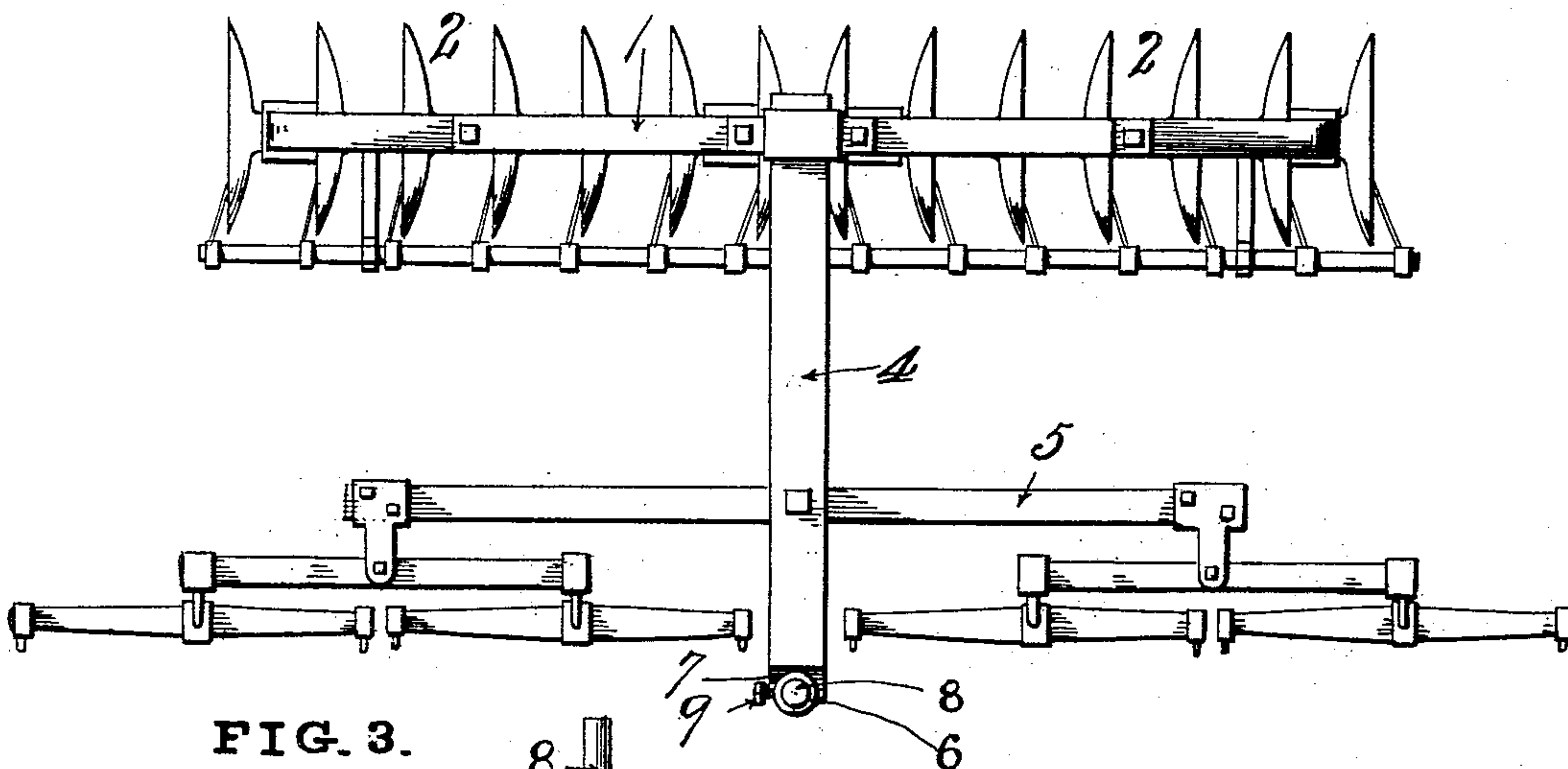
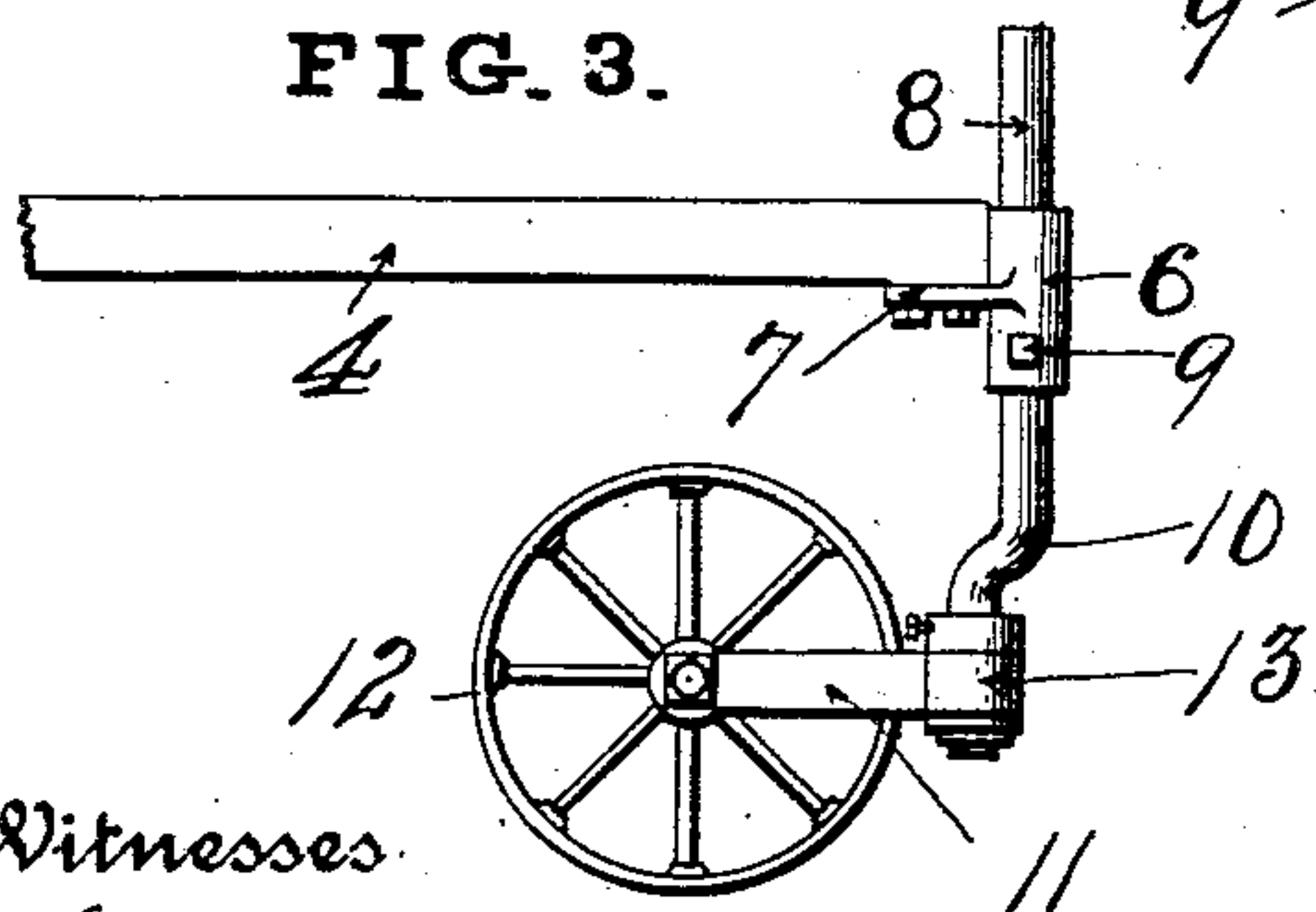


FIG. 3.



Witnesses

Chas. K. Davis.

Lilian Brock.

Inventor

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UNITED STATES PATENT OFFICE.

JOHN W. INGLE, OF MATTOON, ILLINOIS.

DISK HARROW.

SPECIFICATION forming part of Letters Patent No. 745,727, dated December 1, 1903.

Application filed September 14, 1903. Serial No. 173,153. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. INGLE, of Mattoon, county of Coles, and State of Illinois, have invented certain new and useful Improvements in Disk Harrows; and I do hereby declare the following is a full and clear description thereof.

The invention relates to harrows.

More particularly stated, the invention relates to harrows of the disk type, the object being to produce a tongueless harrow having means, as a wheel, for maintaining the proper angle of elevation when in use.

With these purposes in view the invention consists in the following construction and combination of parts, the details of which will first be fully described and the features of novelty then set forth and claimed.

Figure 1 represents a front elevation of a harrow to which I have applied my improvements. Fig. 2 is a plan view of the same. Fig. 3 represents a side elevation of the front portion of the harrow.

In the drawings, 1 represents the frame of a harrow carrying the usual disk gangs 2 and having the usual seat 3.

As ordinarily constructed, disk harrows are provided with a tongue. In my invention I provide a central longitudinal bar 4, secured to the frame 1 and extending upwardly only a sufficient distance to provide for the attachment of the whiffletree or equalizer-bar 5. The front end of this short longitudinal bar 4 is provided with a vertical journal 6, having a flange 7, by means of which it is bolted to the bar 4. In the vertical bearing 6 is arranged an adjustable stem 8, adapted to be set in any position by means of a set-screw or other fastening device 9. The lower part of stem 8 is offset at 10, and its lower end is provided with a bearing 13, on which is jour-

naled a horizontal frame 11, which carries the guide-wheel 12. Wheel 12 trails to the rear of the bearing 13, and by means of the clamp 9 it is vertically adjusted to carry the frame at any desired angle with relation to the disks 2.

By my invention I dispense with the use of a tongue, whereby all weight is taken off the necks of the horses. The wheel keeps the disks steady and prevents them swerving from one side to the other.

In disk harrows of this type the disks are generally provided with a lever and connections for throwing the disks in and out of the soil, which operation is rendered easier and more efficient by employing the guide-wheel in connection with the tongueless draft.

The tubular bearing 6 and its right-angled extension 7 fit securely across and in advance of the front end of the longitudinal bar, thus forming a strong connection and one that is easily accessible in adjusting the stem 8.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of a frame, multiple disk gangs journaled therein, a short central longitudinal bar secured to the frame, a tubular bearing located across and in advance of the front of said bar, having a flange intermediate of the length of the tubular bearing and extending at right angles thereto, bolts passing vertically through said flange and bar, and a guide-wheel pivotally and adjustably hung in said tubular bearing.

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

JOHN W. INGLE.

Witnesses:

H. C. KINCAID,
CHARLES F. RICHMOND.