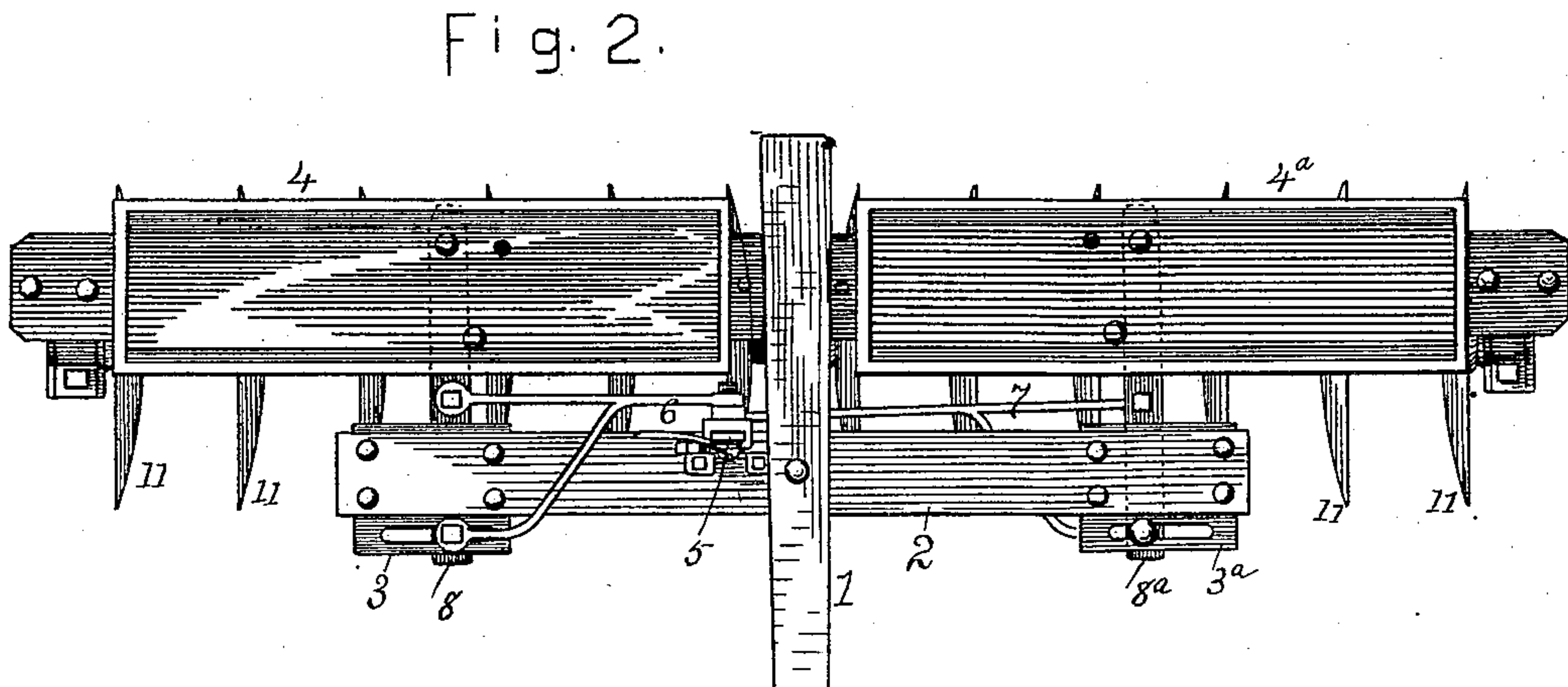
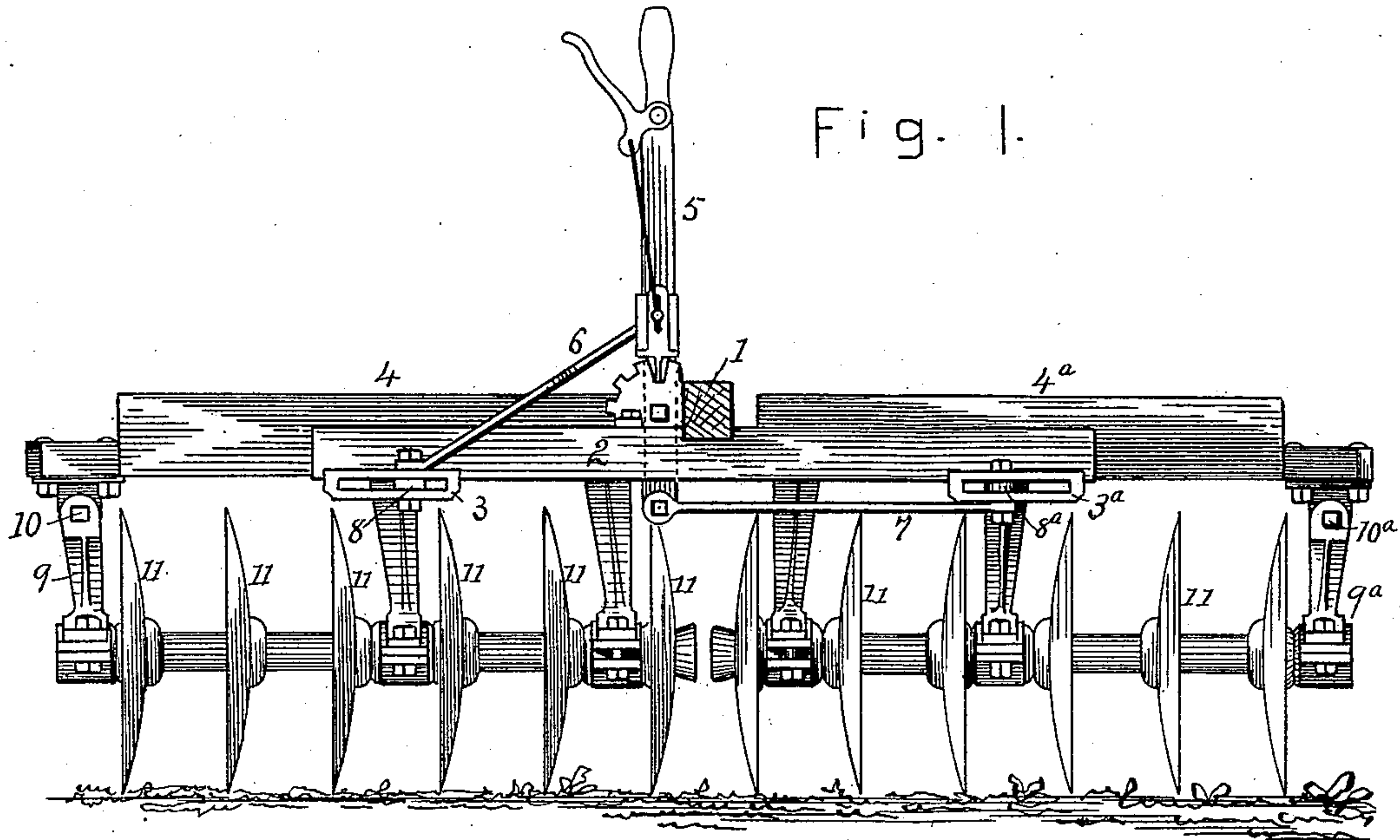


(No Model.)

A. KABURICK.
DISK HARROW.

No. 470,760.

Patented Mar. 15, 1892.



ATTEST

Helen Graham
William Graham

INVENTOR.
ANDREW KABURICK.
by his attorney
L. P. Graham

UNITED STATES PATENT OFFICE.

ANDREW KABURICK, OF SPRINGFIELD, ILLINOIS.

DISK HARROW.

SPECIFICATION forming part of Letters Patent No. 470,760, dated March 15, 1892.

Application filed April 14, 1891. Serial No. 388,912. (No model.)

To all whom it may concern:

Be it known that I, ANDREW KABURICK, of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Disk Harrows, of which the following is a specification.

This invention is designed to provide a harrow which may be readily converted into a straddle-row cultivator, and it relates to disk harrows having two separate gang-shafts, each provided with a set of disks; and it consists in the details of construction and combinations of parts hereinafter set forth and claimed, whereby the gang-shafts may be separated bodily without affecting their inclination with reference to the line of draft and the disks on the outer ends of the shafts may be easily removed.

In the drawings accompanying and forming a part of this specification, Figure 1 is a front elevation of my invention, and Fig. 2 is a plan of the same.

A cross-bar 2 is secured to tongue 1 and provided at its ends with slotted plates 3 and 3^a. The draft-bars 8 and 8^a connect slidingly with the slotted plates and, extending rearwardly, are secured to the weight-boxes 4 and 4^a of the harrow-frame. Lock-lever 5 is fulcrumed on cross-bar 2. The bifurcated end of rod 6 connects with the draft bar 8 on opposite sides of the cross-bar, and the undivided end of the rod connects with lever 5 above the fulcrum thereof. Rod 7 is constructed like rod 6, and it connects similarly with draft-bar 8^a and with the lever below the fulcrum. The bolts that connect the rods with the front ends of the draft-bars also preferably extend through the slots of the plates and connect the draft-bars with the plates. The disks 11 are mounted in gangs on two separate shafts. One shaft is carried by an inner and an intermediate rigid standard connected with a weight-box and by a swinging standard 9, pivoted at 10 on a bracket secured to a weight-box. The other shaft has similar rigid standards and also has the swinging outer standard 9^a, pivoted at 10^a.

The device, as shown, is adapted for use as a harrow. When it is to be converted into a straddle-row cultivator, the shafts, boxes, &c., of one side are carried or forced bodily endwise away from the other shaft by means of the lever and rod 6, and a similar effect is produced on the other shaft and adjuncts by

the lever and rod 7, the shafts being carried in opposite directions and apart by the swing of the lever, and the bearings of the draft-bars slide in the slots of the plates to permit the motion of the shafts. When the shafts have been separated, as above explained, to an extent sufficient to straddle rows, the boxing of standards 9 and 9^a are disconnected from the shafts, the standards are swung aside, the three end disks of each shaft are removed, and the standards are replaced in their shown positions. The last-named operation is designed to rid the device of disks, which, while necessary to a harrow where width is desirable, are unnecessary and in some cases, at least, detrimental to the device when it is obliged to conform to arbitrary rows having definite width of intervening space.

A harrow embodying my invention would be provided with the ordinary levers for adjusting the angle of the disk-frames, and these could be used to cause the frames to tend to run apart or together, if it should be desirable or necessary to shift the frames while the device was operating in soft ground. Before adjusting the disks as above specified the harrow should be run onto hard ground at an end of the field and the driver should dismount; otherwise the resistance to side motion will be greater than the power of the shifting device.

I claim—

1. The combination of the cross-bar having the slotted plates, the disk-frames having draft-bars connected with the plates through the slots, the lock-lever fulcrumed on the cross-bar, and the rods connected with the lock-lever on opposite sides of its fulcrum and also connected one with each draft-bar, whereby the two disk-frames are bodily separated or drawn together by the action of the lever, as set forth.

2. The combination, with the disk-frames having lateral adjustment in different directions, of the pivoted outer standards adapted to permit the ready removal and replacement of the outer disks, as set forth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

ANDREW KABURICK.

Attest:

CLINTON L. CONKLING,
WILLIAM H. CROWE.