(No Model.) 2 Sheets—Sheet 1.

R. H. WALKER & D. S. BEATTY.

PLOW.

No. 543,276. Patented July 23, 1895.

Fig. 1.

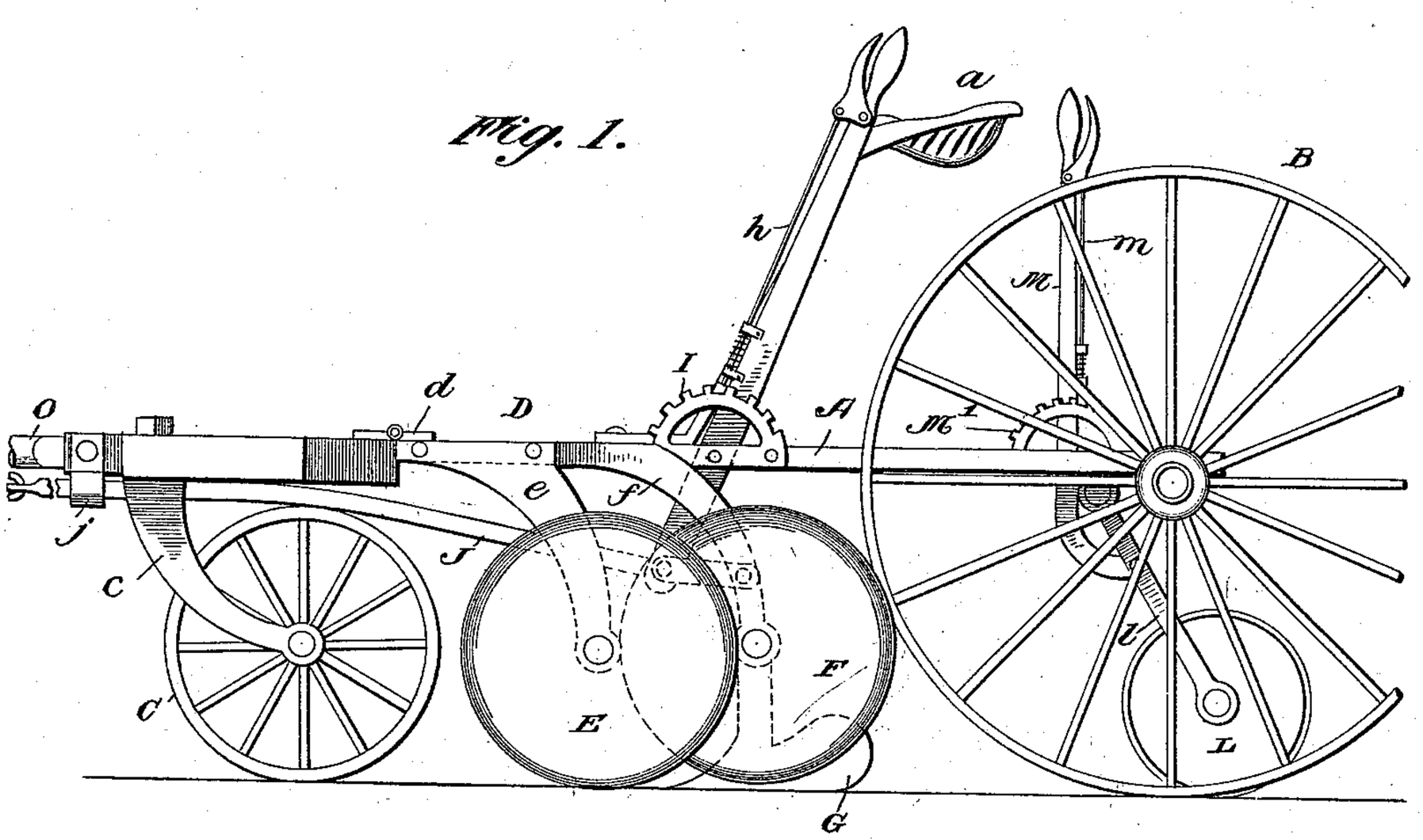
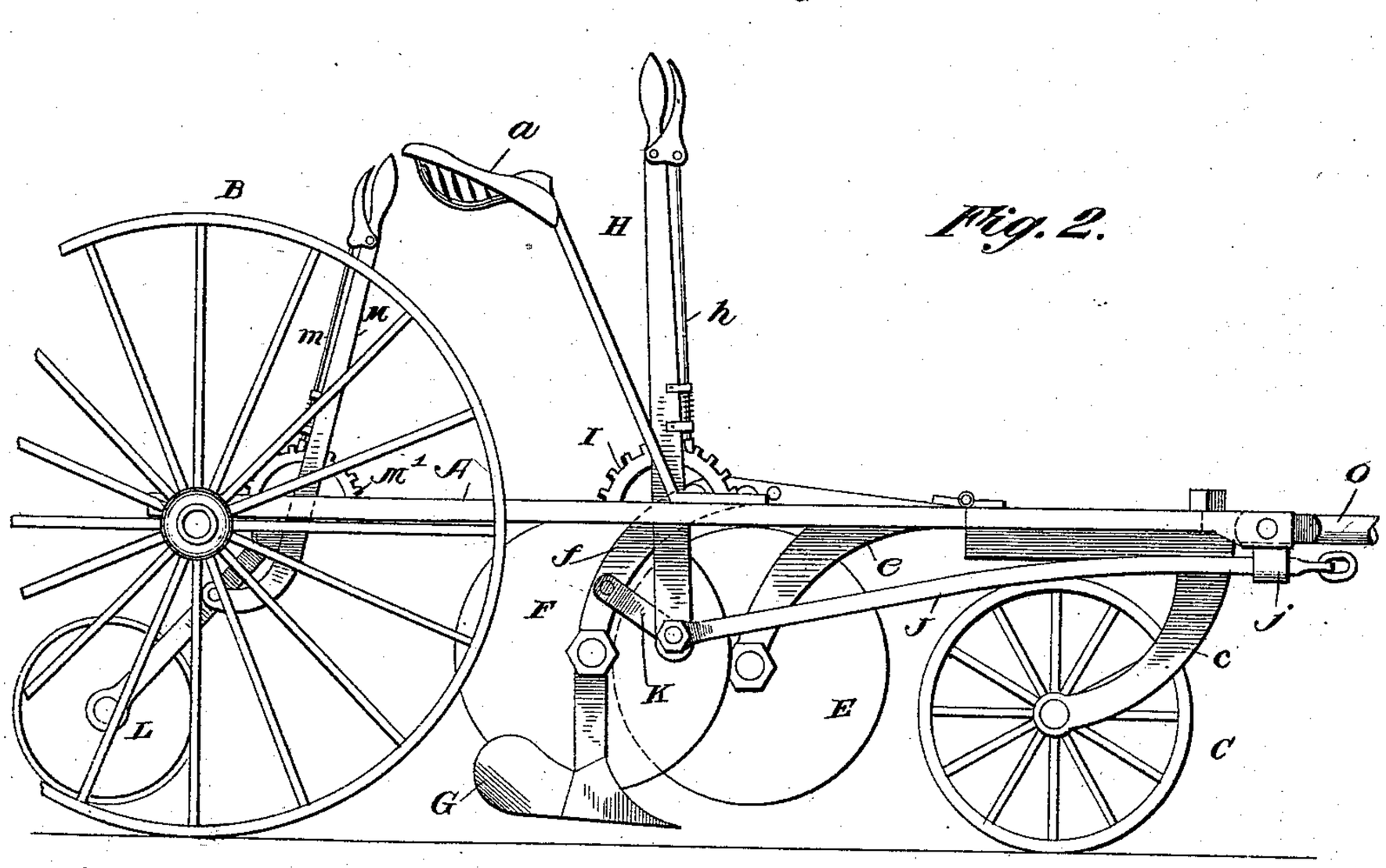


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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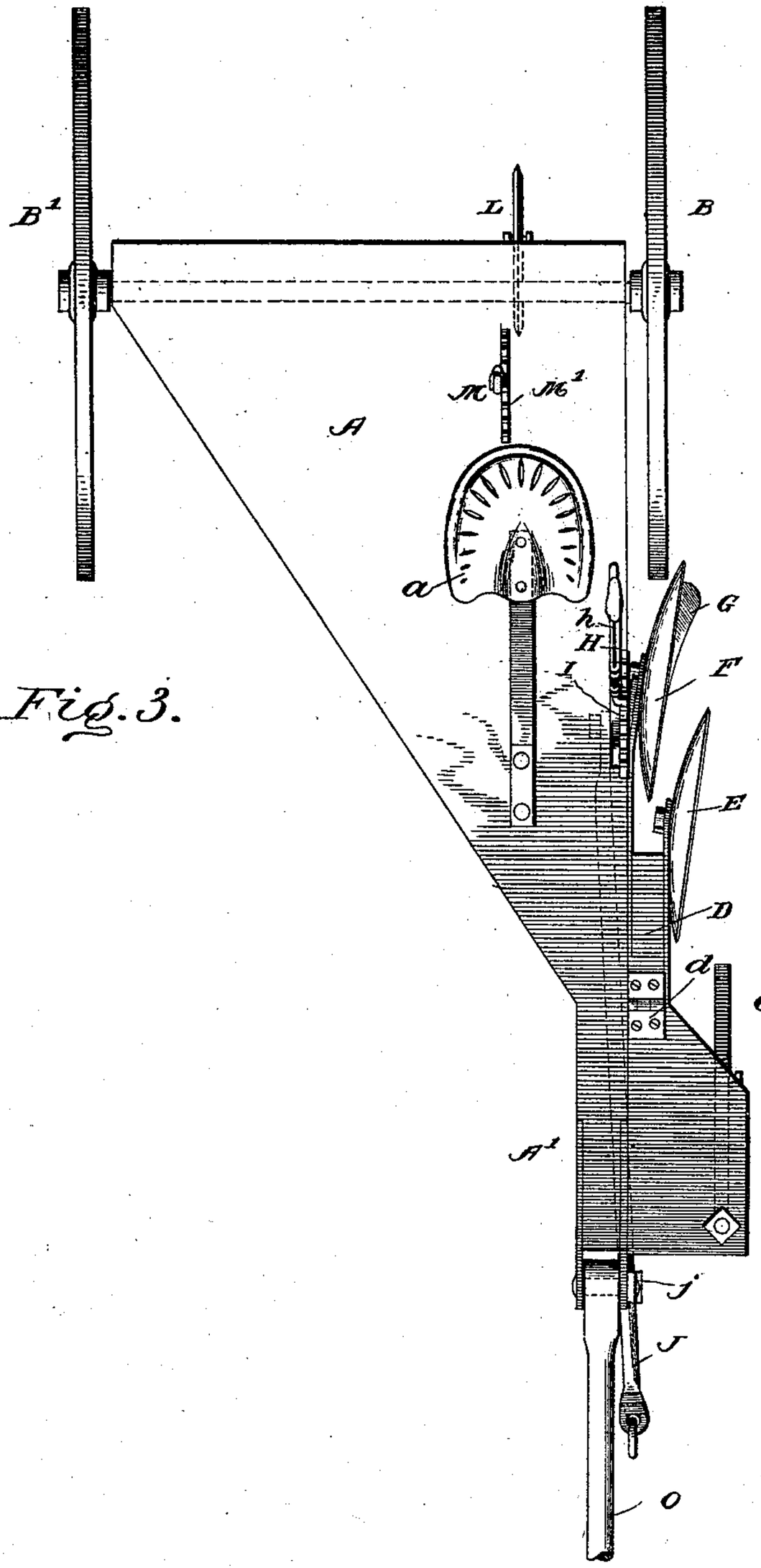

Fig. 3.

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UNITED STATES PATENT OFFICE.

ROBERT H. WALKER AND DAVID S. BEATTY, OF WASHINGTON, IOWA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 543,276, dated July 23, 1895.

Application filed March 11, 1895. Serial No. 541,353. (No model.)

To all whom it may concern:

Be it known that we, ROBERT H. WALKER and DAVID S. BEATTY, citizens of the United States, residing at Washington, in the county of Washington and State of Iowa, have invented certain new and useful Improvements in Plows; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement in plows, and more particularly to the class known as "rotary" or "revolving" plows, the object being to simplify and make more efficient plows of this character; and the invention therefore consists in the construction, arrangement, and combination of parts, substantially as will be hereinafter described and claimed.

In the annexed drawings, illustrating our invention, Figure 1 is a side elevation of our improved plow. Fig. 2 is an opposite side elevation of the same. Fig. 3 is a top plan view.

Like letters of reference designate like parts in all the different figures of the drawings.

A denotes the main platform of our plow, which may be of any desired shape and size. On this platform is a suitable seat *a* for the driver. The forward end of the platform A forms the plow-beam A′. Below the beam A′ is the wheel C, which is supported in the swiveling standard *c*. This swiveled wheel is adapted to run freely in the furrow ahead of the revolving plow-disks.

B denotes the main furrow-wheel, which is located immediately behind the disks, and B′ the main land-wheel, said wheels being of tolerably-large size and situated opposite to each other. These wheels B B′ revolve on an axle attached to the main platform A.

E and F designate the rotary plow-disks. They are located alongside of each other at any desired angle, as shown. The disk E is carried by the supporting-arm *e*, which is secured at its upper end to one side of the hinged plow-beam D, said beam being attached to the main beam A′ by means of some suitable hinge *d;* and the plow-disk F is carried by the supporting-arm *f*, extending farther back than the arm *e* in order that the two disks may be properly placed relatively to each other. The disks E and F may be of any usual or of a novel construction, as may be deemed most suitable. The arm *f* carries at its lower end a furrow-cleaner G, which is in the shape of a common breaking-plow with a straight cutter to clean the landside. This will be found to be a very useful adjunct for the plow-disk.

H denotes a lever-handle, which extends upward alongside of the seat *a*, so as to be within convenient reach of the operator. This lever is fulcrumed on the platform A and extends below the latter. It is provided with a spring-catch *h*, that engages the notched segment I, so as to hold the lever in any desired position of adjustment.

J indicates the draft-rod to which the team is hitched. This is located in a substantially horizontal position beneath the platform A, its rear end being pivoted to the lower end of the lever H, while its forward end projects through the guide *j* on the front end of the plow-frame. This front end of rod J carries a ring or other device, so that the team may be easily harnessed thereto. A link or coupling K is pivoted to the lower end of lever H and also to the arm *f*, so that in this way the inner end of the draft-rod is connected to the hinged plow-beam. A tongue is pivoted at the forward end of part A′ and plays up and down, as may be required, but it has no side movement.

The provision of the coupling-link K is a very important feature of our invention. It enables the pulling action upon the draft-rod to be transmitted direct to the plow-beam and results in depressing said beam. Every pound of draft action causes a downward pressure on the frame and disks, and thus enables the plow to run perfectly steady and holds the disks at the desired or adjusted depth. The straight direct draft-rod J is a valuable feature, arranged and operating substantially as set forth. By its use with the adjustment shown all side draft is obviated.

L denotes a rolling cutter, which is carried by an arm *l*, the upper end of which is pivotally hung beneath the platform A, preferably near the rear end thereof. The height of this wheel from the ground is adjusted by means of the lever M, that is fulcrumed on the

platform A and pivoted to the arm *l*, said lever M having a spring-catch *m* to engage the toothed segment M′ for the purpose of holding the lever M and consequently the cutter L in any desired position. This wheel is placed at the desired distance from the wheel B (see Fig. 3) to cut the way for one or more furrows to be used in the next passing of the plow. The main purpose of this rolling cutter is to act as a steadying-frame and take the side strain off the wheels B B′. It will also be observed that this cutter L will cause no additional draft, as it will lessen the draft on the forward plow-disk at next passing.

By our improved combination and arrangement of parts many advantages are secured over the common construction of rotary and other plows. The front swiveled wheel is an advantage. Being placed in the furrow (which is always level in the bottom) it obviates all the up-and-down throw of a front wheel running on the land surface, especially when crossing furrows or ridges, and also in finishing the land there can be no dropping of the wheel from the land into the furrow, and thereby a consequent plowing at an uneven depth. The large furrow-wheel B is also a very useful feature. It runs in the furrow. It is the main stay to hold the disks in proper lateral position, and being directly behind the furrow-cleaner G it acts in connection with the front swivel-wheel to hold the disks at the adjusted depth.

Our improvements are applicable to the common breaking-plow, as well as to disk plows.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a plow, the combination of the frame, the hinged beam, the disks carried thereby, the adjusting lever for the disks, the draft rod pivoted to said lever and the link pivoted to the lever and the beam, substantially as described.

2. In a plow, the combination of the frame, the hinged beam, the disks carried thereby, the disk arms secured to the beam, the draft pole, and the coupling link, substantially as described.

3. The combination of platform A, beam D, disks E and F, said disks being supported in arms *e* and *f*, secured to the beam D, the breaking plow G carried by the lower end of arm *f*, and the draft pole J.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT H. WALKER.
DAVID S. BEATTY.

Witnesses:
A. S. FOLGER,
T. H. MAXWELL.