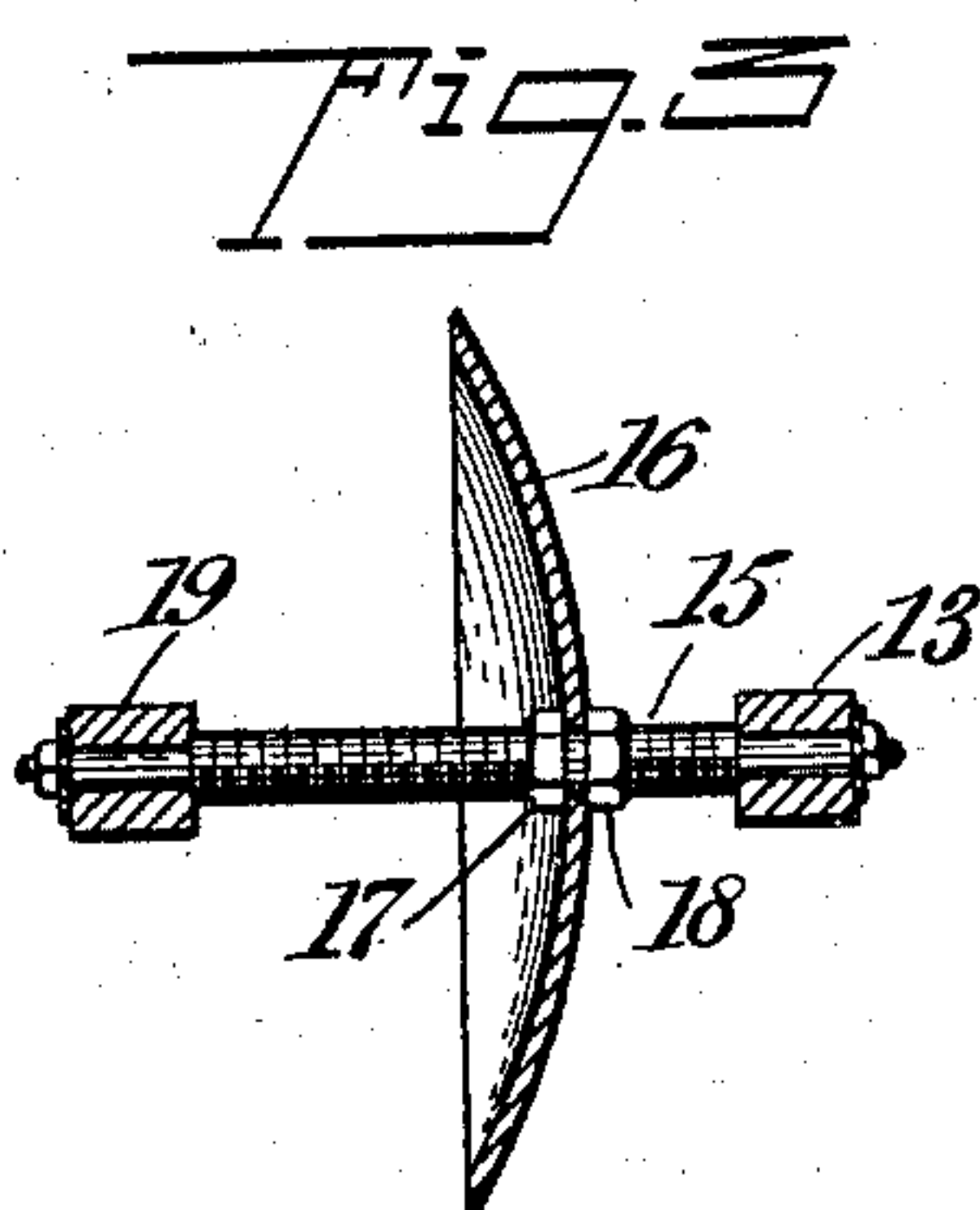
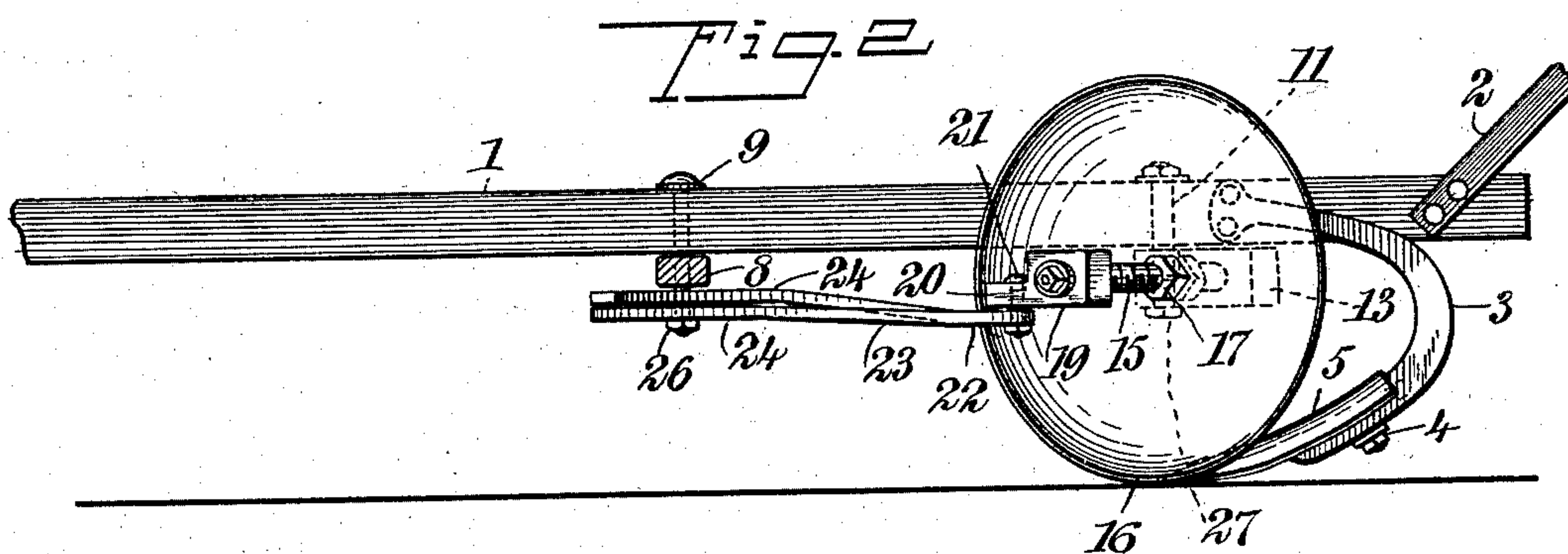
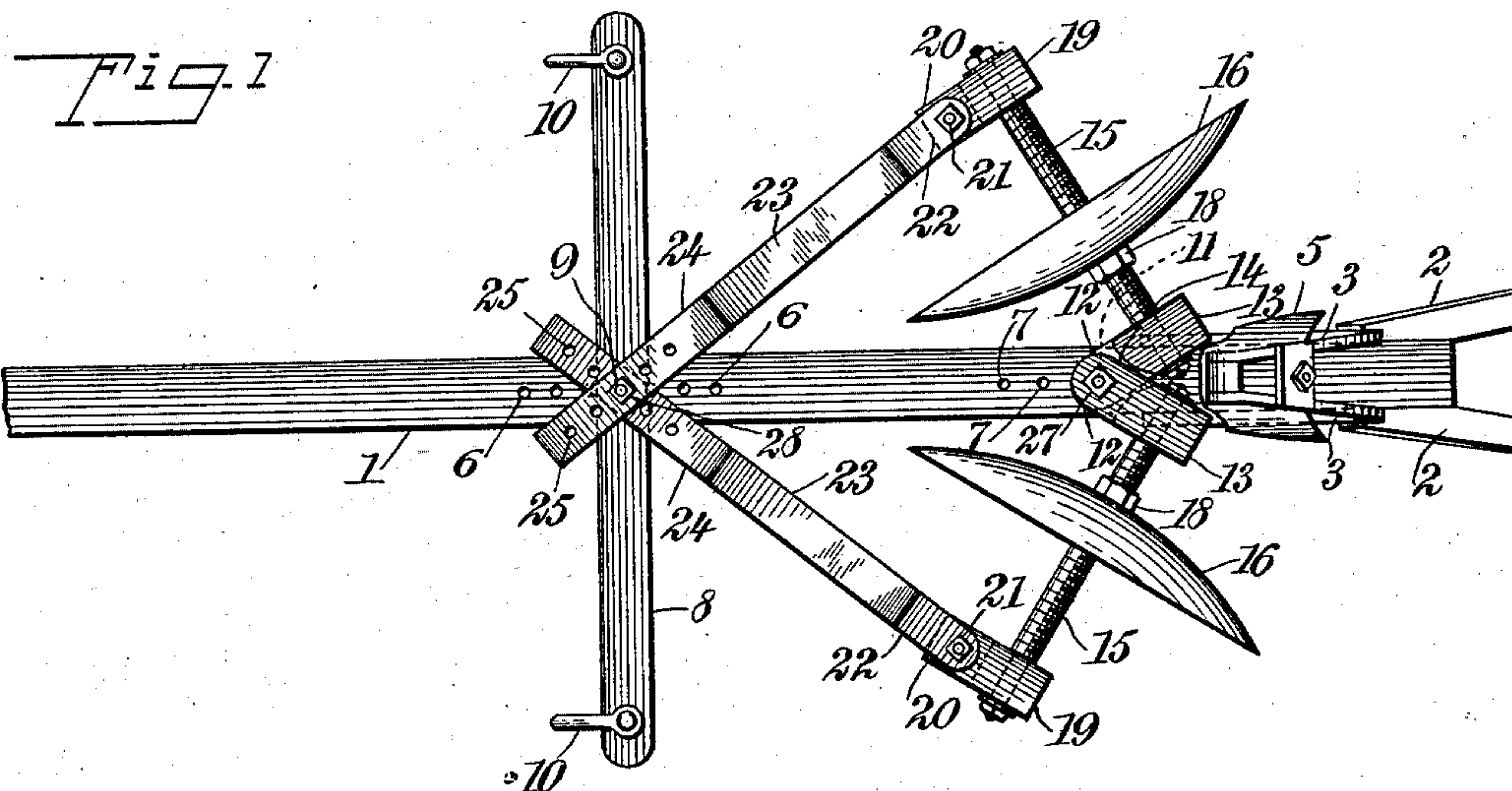


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E. B. LEE & C. H. BEAZLEY.  
DISK CULTIVATOR PLOW.  
APPLICATION FILED JULY 17, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ELIJAH BUTTS LEE AND CHARLES H. BEAZLEY, OF LEESBURG, GEORGIA.

## DISK CULTIVATOR-PLOW.

SPECIFICATION forming part of Letters Patent No. 749,619, dated January 12, 1904.

Application filed July 17, 1903. Serial No. 165,941. (No model.)

*To all whom it may concern:*

Be it known that we, ELIJAH BUTTS LEE and CHARLES H. BEAZLEY, both citizens of the United States, and residents of Leesburg, in the county of Lee and State of Georgia, have invented a new and Improved Disk Cultivator-Plow, of which the following is a full, clear, and exact description.

This invention relates to cultivator-plows; and it consists, substantially, in the construction, organization, and combinations of parts hereinafter particularly described, and pointed out in the claims.

Our improvements have reference more especially to cultivator-plows of the disk form or type; and one of the principal objects of our invention is to provide means for overcoming numerous disadvantages and objections found to exist with many plows of a like kind hitherto devised, and also to provide a plow of this character which is simple and comparatively inexpensive to manufacture, as well as easily adjusted, and comprising but few parts not liable to get out of order or become easily broken or dislocated.

A further object of our invention is to provide a plow of the character referred to which is effective and reliable in use or operation, besides being of light draft, easily controlled or handled, and possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a bottom plan view of a cultivator-pLOW constructed and organized in accordance with our improvements. Fig. 2 is a side elevation thereof, partly in section; and Fig. 3 is a vertical sectional view of one of the disks of the plow, showing the means by which the disks may be adjusted to any position desired relatively to the supporting-shaft therefor.

Before proceeding with a more detailed description it may be stated that in the form of our improvements herein shown we employ a plow-beam of any preferred construction to which a suitable draft appliance is connected for enabling the plow to be drawn by one or

more horses or other animals, and properly disposed with reference to the sides of the beam are practically duplicate shafts, upon which are mounted the plow-disks, the latter being adjustable on the former and the said shafts being supported in specially-constructed bearings therefor adapted to be swung to any desired position laterally of the beam, thus admirably adapting the plow to various uses in the different cultivating operations, as will be apparent. \*The plow-beam is also of special construction, as are the adjustable braces or connections between said beam and the outermost bearings for the disk-shafts, and while we have herein represented our improvements in a certain preferred embodiment it will be understood, of course, that we are not limited to the precise details thereof in practice, since immaterial changes therein may be resorted to coming within the scope of our invention.

Our improvements are capable of ready application to many of the ordinary plow-beams at present in use, and the disks are also capable of being set at any desired distance apart, as well as at any angle to each other and to the beam. Said disks may be reversed so as to bed back the other way, if desired. Moreover, by the use of our improvements soil of any kind may be admirably bedded and otherwise operated upon, while the labor and expense attending such use are considerably reduced.

Specific reference being had to the accompanying drawings by the designating characters marked thereon, 1 represents the plow-beam, which may be of any desired length and other dimensions and which is provided at the sides of the rearward end thereof with handles 2, suitable curved members or arms 3 being secured at their upper ends also to the sides of the beam, the lower ends of these members having secured thereto by means of bolts 4 or otherwise an ordinary shovel 5, as shown, or other style plow. At a suitable distance from the forward end thereof the beam is formed with a series of vertical openings 6, extending all the way through the same, the beam also being formed with a similar series of openings 7, formed therein more nearly in advance of the handles 2, it



being noted that a draft appliance, as a swingletree 8, is centrally pivoted to the beam by means of a bolt 9, passing through an opening in the swingletree, which opening may be made to register with any one of the said openings 6, as is apparent, the said swingletree 8 being provided near its ends with suitable clips 10 for attachment thereto of the draft chains or lines. (Not shown.)

10 Passing through any one of the series of openings 7 is a bolt 11, which also passes through corresponding or registering openings therefor formed in the forward tapped portions 12 of duplicate laterally-swinging blocks 13, located, preferably, at the underside of the beam, the inner or adjacent edges of said portions 12 being convexed or curved at 14 to permit free motion of the blocks relatively to each other, it being understood that these blocks are movable upon the said bolt 11. Said blocks constitute bearings for the inner ends of shafts or rods 15, upon each of which is mounted, preferably, a concave or cup-shaped disk 16, said shafts being threaded for 25 practically their full length, as shown, and the disks being adjustably secured thereon, each by means of nuts 17 and 18, disposed at opposite sides thereof, it being here mentioned that the said disks preferably revolve with the shafts, although they may be made to revolve thereon, in which case the shafts would be supported in a stationary manner, being secured by suitable fastenings in the bearing-blocks by nuts or the bolts, as desired, (see Fig. 3,) also the said bearing-blocks altered in form to meet same as changed, the former embodiment being preferred on account of the greater strength and wear derived. The outer end of each of said shafts or rods 15 is supported in a bearing-block 19, having a tongue or projection 20, provided with an opening through which passes a bolt 21, said bolts also passing through corresponding coinciding openings therefor formed near the rearward ends 22 of duplicate braces or connecting-rods 23, which are constructed at their forward portions 24 to lap or cross each other, the said portions being provided each with a series of correspondingly-disposed openings 25, adapted to coincide or register with the said openings 6 in the beam, the bolt 9 also passing through such openings and forming the means of attachment of said braces to the beam, as is apparent, said bolt being provided at its lower end with a nut 26. By making a tap fit on the end of the disk-rods 15 they can be fastened solidly in the bearings and allow the disks to revolve.

It will thus be seen that any number of combinations of adjustments for the disks may be had, according to the particular use or operation to which our improvements may be applied, it being noted that the bolts 9 and 11 are provided, respectively, with fastening-nuts 26 and 27 for securing the parts in the

different positions to which the same may be adjusted.

We are not limited, of course, to the size or dimensions of any of the parts set forth, nor to the particular organization thereof herein specifically explained or pointed out.

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

1. A cultivator-plow, comprising a beam, shafts, disks carried upon said shafts, means for adjusting the disks longitudinally on said shafts, swinging bearing-blocks on the beam for the inner ends of the shafts, braces for the outer ends of said shafts, said braces being adjustably connected at their forward ends to the beam, and a second set of swinging blocks forming the rear terminals of said braces, said blocks also forming bearings for the outer ends of said disk-carrying shafts and constituting connecting-links between the outer ends of said shafts and said braces.

2. A cultivator-plow, comprising a beam having a series of openings therein, a suitable distance from its forward end, and also having a similar series of openings formed rearwardly of the first series, duplicate shafts having disks thereon, duplicate swinging bearing-blocks for the inner ends of said shafts, said blocks being pivoted in any one of said rear series of openings for adjusting said blocks rearwardly or forwardly upon the beam, braces connected at their forward ends to the beam of the plow, a second set of swinging bearing-blocks forming the rear terminals of said braces, said blocks also forming bearings for the outer ends of said disk-carrying shafts and constituting connecting-links between the outer ends of said shafts and said braces, and means for adjusting said braces longitudinally and also for securing the forward ends of the braces at any one of the first-named series of apertures, to adjust said ends forwardly and rearwardly on the beam.

3. A cultivator-plow comprising a beam, duplicate threaded shafts, disks supported thereby, nuts for adjusting the disks longitudinally on said shafts, swinging bearing-blocks carried by the beam for the inner ends of the shafts, adjustable braces connected at their forward ends to the beam of the plow, and a second set of swinging bearing-blocks forming the rear terminals of said braces, said blocks also forming bearings for the outer ends of said disk-carrying shafts and constituting connecting-links between the outer ends of said shafts and said braces.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ELIJAH BUTTS LEE.  
CHARLES H. BEAZLEY.

Witnesses:

H. L. LONG,  
J. W. MORGAN.