

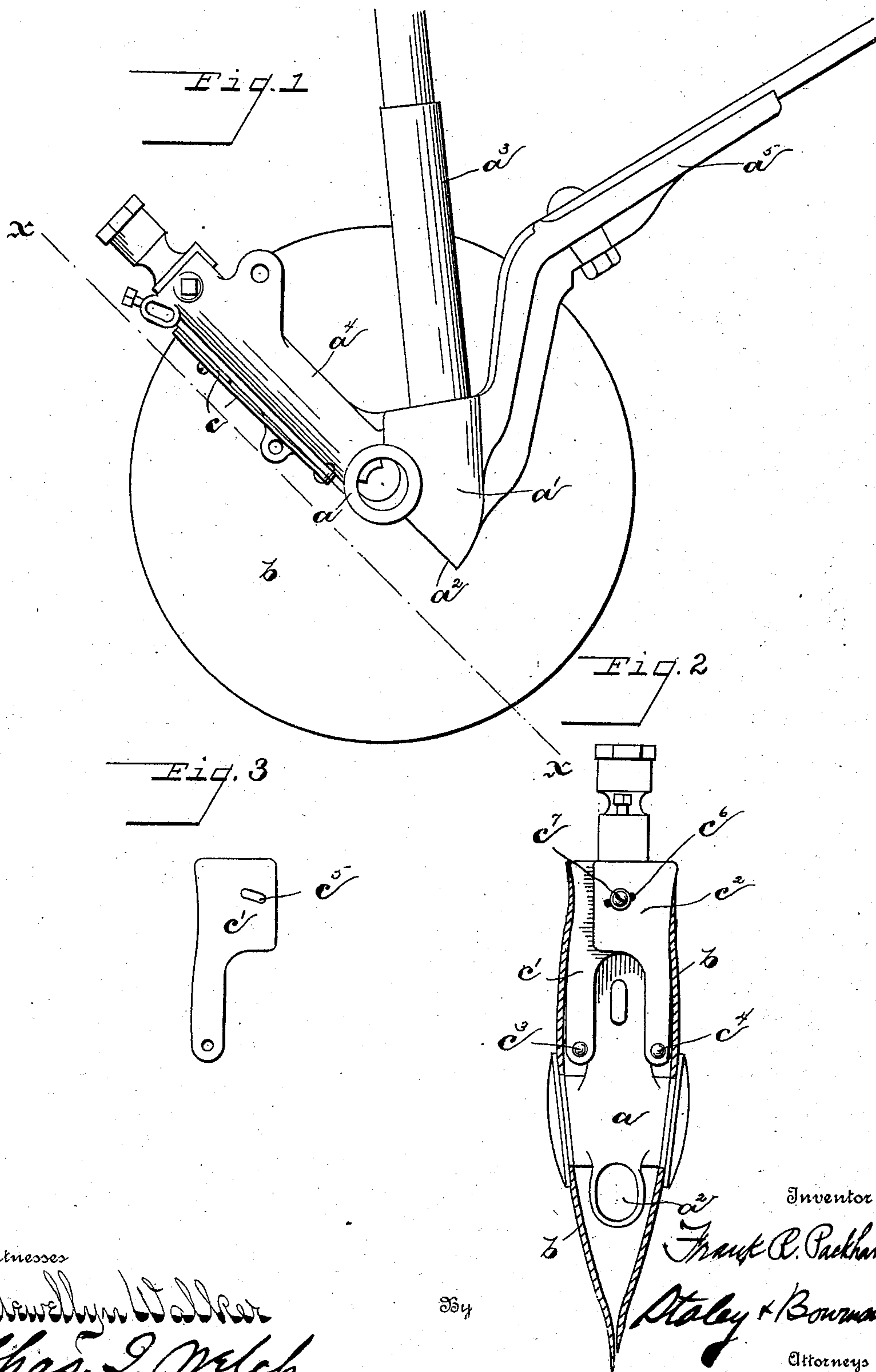
No. 747,759.

PATENTED DEC. 22, 1903.

F. R. PACKHAM.  
DISK FURROW OPENER.

APPLICATION FILED SEPT. 21, 1903.

NO MODEL.



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK R. PACKHAM, OF SPRINGFIELD, OHIO, ASSIGNOR TO AMERICAN SEEDING MACHINE COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## DISK FURROW-OPENER.

**SPECIFICATION** forming part of Letters Patent No. 747,759, dated December 22, 1903.

Application filed September 21, 1903. Serial No. 173,928. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK R. PACKHAM, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Disk Furrow-Openers, of which the following is a specification.

My invention relates to improvements in furrow-openers for grain-drills, and particularly to furrow-openers of the double-disk type.

The object of my invention is to provide a scraper for the inner sides of the respective furrow-opening disks, the especial object being to provide a scraper which can be quickly and easily adjusted to its proper working position against the sides of the disks and one which in any of its adjusted positions will always properly conform to the shape of the disks.

The invention consists in the constructions and combinations of parts hereinafter described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a furrow-opener of the double-disk type to which my invention has been applied, one of the disks being shown removed to better illustrate the parts. Fig. 2 is a sectional view, the section being taken through the disks on the line *xx* of Fig. 1. Fig. 3 is a detail of a portion of the scraper.

Like parts are represented by similar letters of reference in the several views.

The particular construction of furrow-opening device which I have illustrated in the drawings is described in my pending application, Serial No. 173,089, filed September 14, 1903, and may be briefly described as follows: *a* represents the bearing support or frame for the disks *b*, said disks being journaled in said support or frame in the manner described in said application. The said support or frame *a* is formed with a grain-conduit *a'* in front of the axial center of the disks, the conduit having a curved discharge-opening *a''* to deflect the grain to the rear of a vertical line through the center of the disks, a grain-spout *a'''* leading into the upper end of said conduit.

*a''''* represents an oil-conduit secured to the

supporting-frame *a*, and *a''''* the attachment for the usual drag-bar. To a suitable point on the said supporting-frame *a* between the respective disks *b* I secure my improved scraper *c*. In the present form of device I have chosen this point as that part of the supporting-frame in the rear of the oil-conduit *a''*, which portion of the frame extends backwardly and upwardly from the axial center of the disks. The scraper *c* consists of two plates *c'* and *c''*, said plates being pivoted at their lower or inner ends to the said support *a*, as shown at *c'''* and *c''''*, said pivotal points being located in proximity to the central bearing for the disks. The said plates *c'* and *c''* extend along the supporting-frame to the outer peripheries of the said disks and each of said plates is formed on the side adjacent to its corresponding disk of a shape to conform to the contour of the disk. The outer portions of the plates *c'* *c''* overlap, as shown, and are provided with slotted openings *c'''* *c''''*, registering with each other when the plates are in position, the said plates being secured to the outer part of the supporting-frame by means of a screw *c''''* or other suitable fastening device, which extends through the slotted openings. By loosening the fastening *c''''* the plates can be moved on their pivots *c'''* and *c''''* to or from the disks by reason of the slotted openings.

By this construction I have provided a scraper for the disks which can be easily adjusted laterally to and from the disks to provide for taking up wear thereon and also to provide for the changing positions of the disks when taking up the wear of the disk-bearings.

By making the scrapers adjustable laterally I am enabled to form the scraping edges of the scraper of a shape to more nearly conform to the shape of the disks, especially when disks like those shown in the drawings are employed having straight or flaring edges.

Having thus described my invention, I claim—

1. The combination of double disks, a supporting-frame, a discharge-opening in said frame located in front of the axial center of

the disks with its lower end curved rearwardly to deflect the seed to a point below and in the rear of the axial center of said disks, and a scraper secured to said support, said scraper 5 being located on the opposite side of the axial center of said disks from said discharge-opening, substantially as specified.

2. In a double-disk furrow-opener, a supporting-frame, double converging disks supported by said frame, scrapers pivoted at 10 their lower ends and formed with slots in the other end, and means for adjusting laterally said scrapers, for the purpose specified.

3. In a disk furrow-opener, a supporting-frame, double converging disks supported by 15 said frame, double scrapers pivoted at their lower ends, adjustable devices at their other

ends, and means for moving laterally said scrapers and for holding same in their adjusted position, for the purpose specified. 20

4. In a disk furrow-opener, a supporting-frame, double converging disks supported by said frame, scrapers pivoted at their lower ends and overlapping edges formed at their opposite ends, and adjusting devices adapted 25 to bind together the overlapping edges for holding in adjustment the said scrapers.

In testimony whereof I have hereunto set my hand this 16th day of September, A. D. 1903.

FRANK R. PACKHAM.

Witnesses:

THAYER K. MORROW,  
CHAS. I. WELCH.