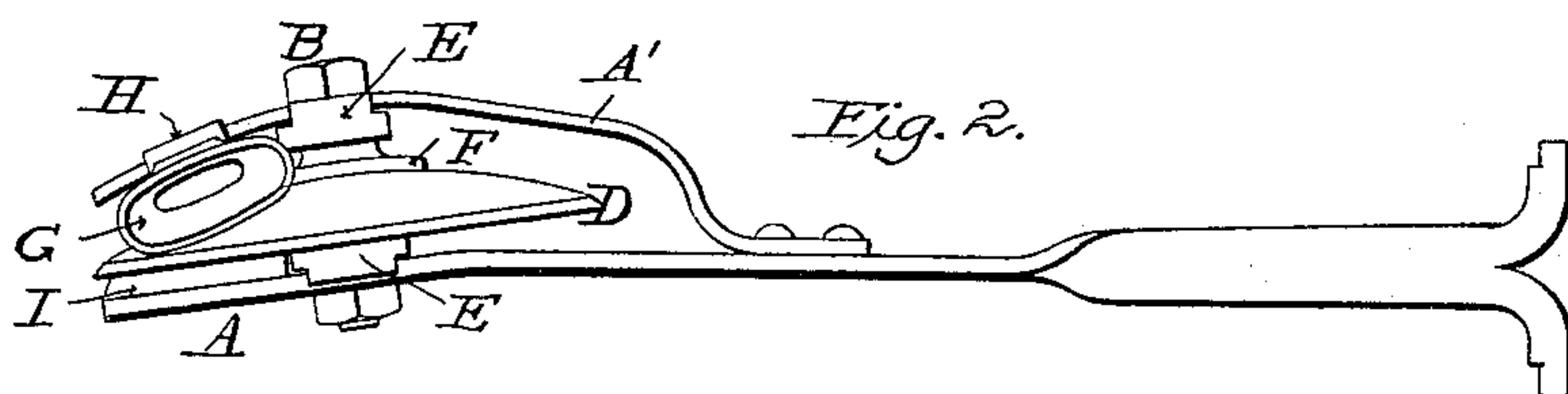
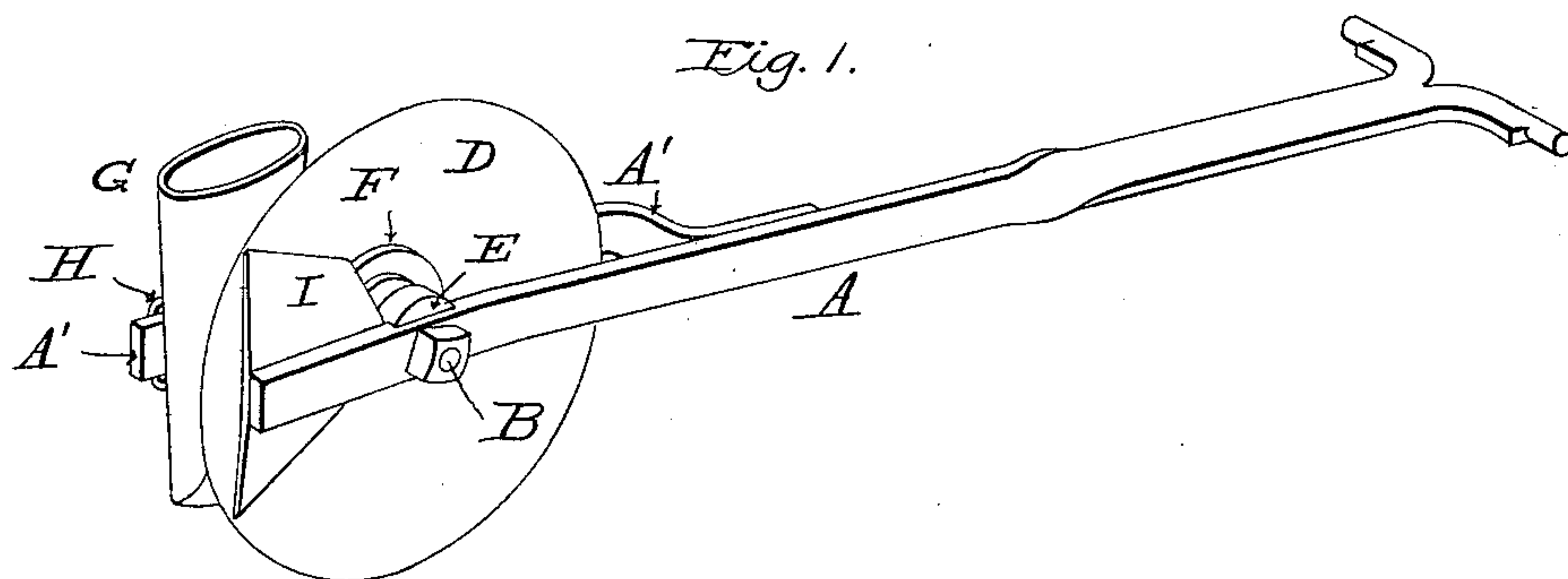


(No Model.)

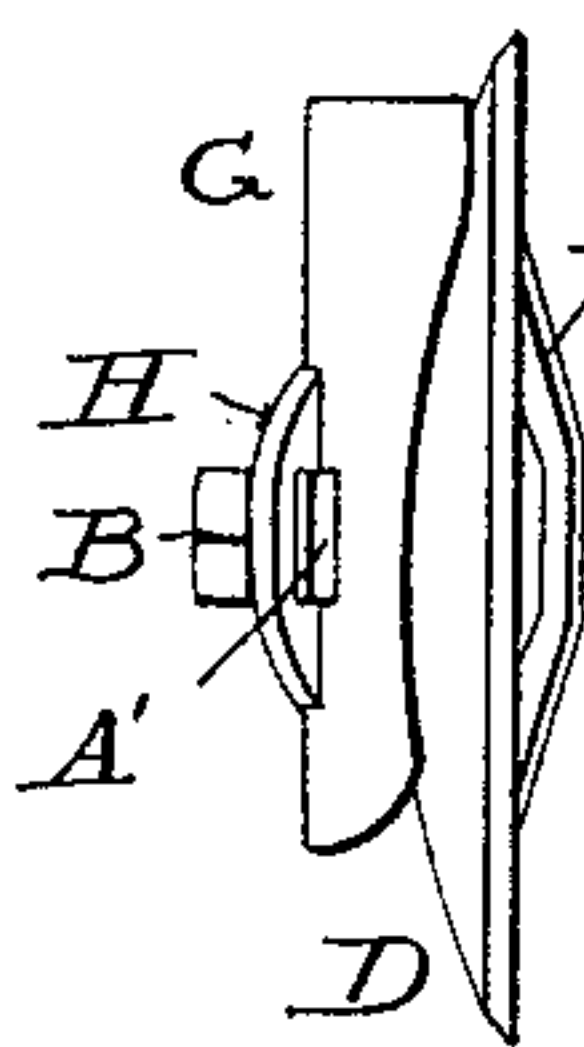
D. E. McSHERRY.  
SEEDING MACHINE.

No. 354,163.

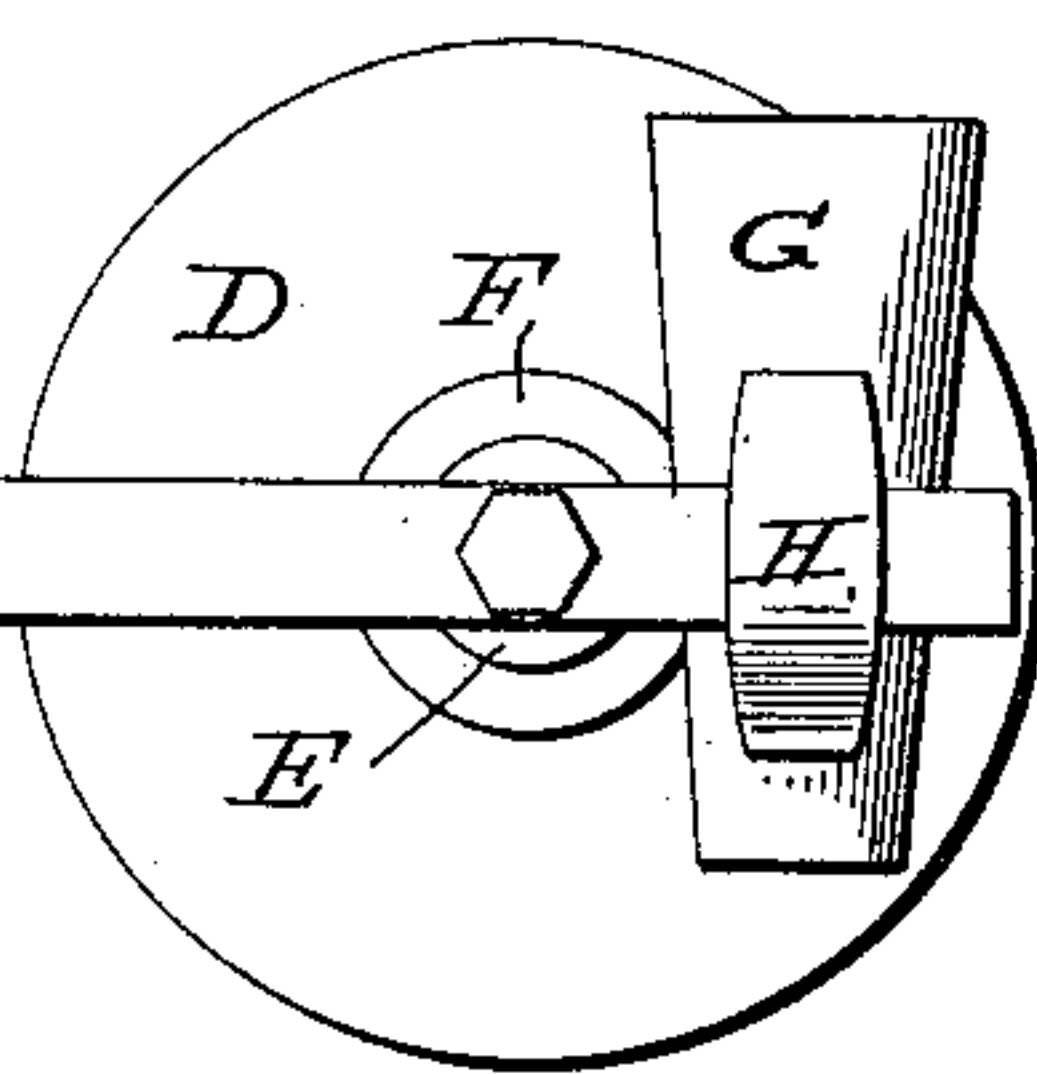
Patented Dec. 14, 1886.



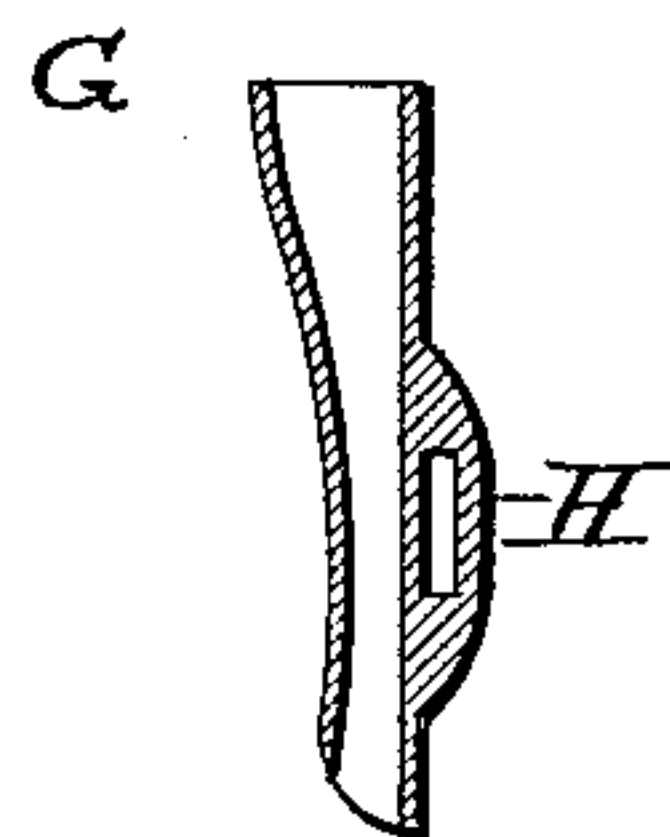
*Fig. 3.*



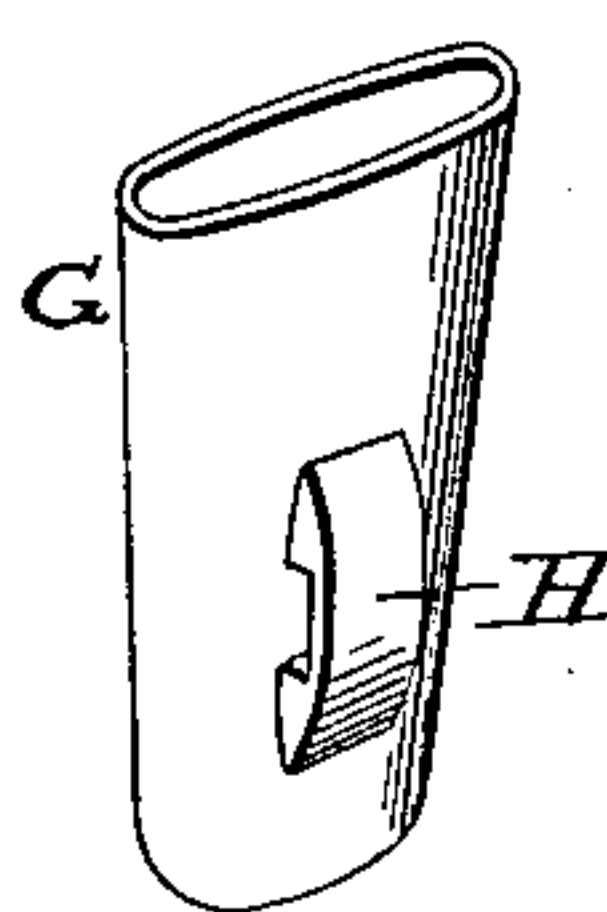
*Fig. 4.*



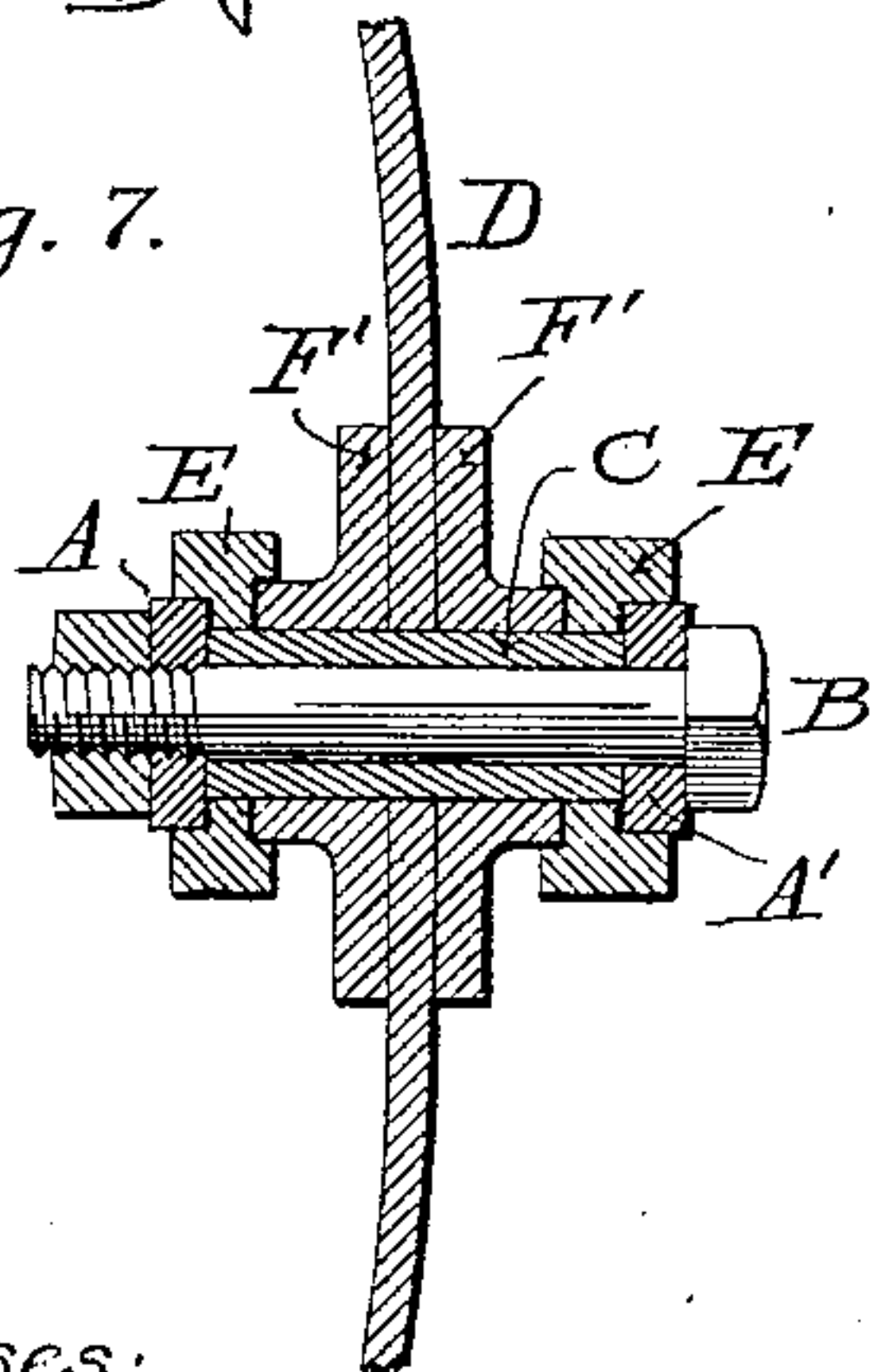
*Fig. 5.*



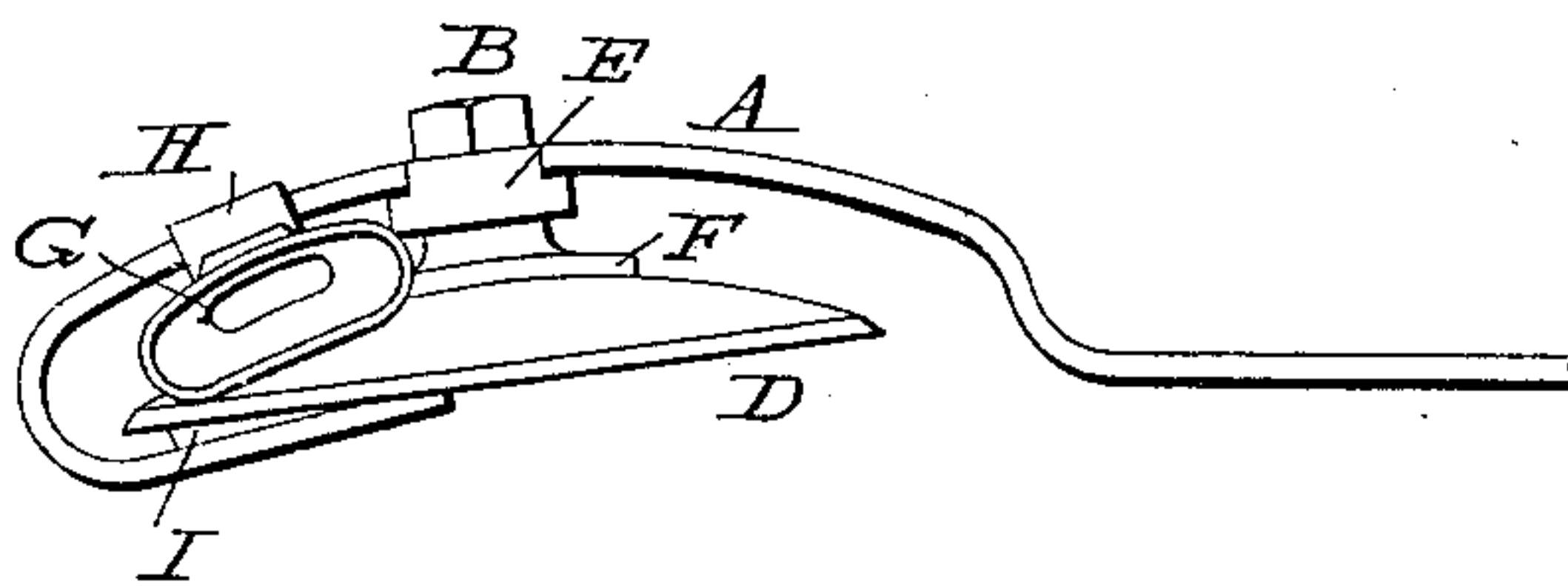
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



Witnesses:

James P. Duhamel  
Walter J. Dodge

D. E. McSherry,  
Inventor.

by Rodgers & Son

his Attys.



# UNITED STATES PATENT OFFICE.

DANIEL E. McSHERRY, OF DAYTON, OHIO.

## SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 354,163, dated December 14, 1886.

Application filed October 11, 1886. Serial No. 215,899. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL E. McSHERRY, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Seeding-Machines, of which the following is a specification.

This invention relates to seeding-machines, and has reference more particularly to that class of seeders in which a series of concavo-convex disks is employed in lieu of drill-teeth or shovels.

This invention consists in a novel construction and arrangement of disk-supporting devices or drag-bars, the seed-delivery tube, and the scraper, all as hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a perspective view showing a drag-bar of a seeder with my improvements applied; Fig. 2, a top plan view; Fig. 3, a rear end view; Fig. 4, a side elevation; Figs. 5 and 6, views illustrating more clearly the construction of the seed-tube; Fig. 7 an enlarged vertical section of the disk and supporting devices in a plane parallel with its axis, and Fig. 8 a view showing a slightly-different form of drag-bar.

A indicates a drag-bar, and A' an arm bolted, riveted, or otherwise secured thereto, the arm extending from about the middle of the drag-bar A to the rear end thereof, and separated a distance therefrom, as shown in Figs. 1, 2, 3, and 7. The drag-bar is provided at its forward end with laterally-extending arms to form journals, upon which it oscillates, as usual.

B indicates a bolt, which connects the two parts A A', and which is encircled by a sleeve, C, as shown in Fig. 7, the sleeve in turn receiving on its exterior the hub of concavo convex disk D, and abutting at its ends against the inner faces of the arms A A'. Fitting upon the ends of the sleeve C are blocks E, which are recessed on their outer faces to fit upon the drag-bar A and arm A', and are socketed on their inner faces, as shown in Fig. 7, for a purpose to be explained.

The disk D is provided with a hub, F, which may be made integral with the disk or formed by means of two tubular collars, F', having broad faces or disks, between which the main disk D is clamped, as shown in Fig. 7. The ends of the hub enter the sockets in the inner faces of blocks E, as clearly shown in Fig. 7, and form a long bearing for the disk upon the

sleeve, which effectually prevents tipping or wobbling. The blocks E, overhanging the ends of the hub F, prevent dirt from getting into the bearing. By means of the bolt B the two arms of the drag-bar may be drawn tightly together, so as to bind them and the disk-supporting sleeve firmly together, the sleeve serving as a spacing-block and preventing pressure upon the ends of the hub. This arrangement affords a firm support for the disk, as the sleeve is supported at both ends and on opposite sides of the disk.

The blocks E are prevented from turning by reason of their outer faces being recessed to fit the two branches A A' of the drag-bar.

Upon reference to Fig. 2 it will be noticed that the drag-bar is bent or curved at or near its rear end, so as to cause the disk to run at an angle to the line of draft. This is done for the purpose of causing the disk to open a comparatively wide furrow, and for the further reason that it enables me to place the seed-delivery tube G in such position as to plant directly in the furrow without unduly extending the arm A' rearwardly.

The seed-delivery tube G, as shown in Figs. 1 to 6, inclusive, is tapering in width from top to bottom, and is flattened throughout the greater part of its length. On one face the tube is provided with an eye or loop, H, which may be riveted or otherwise secured thereto, the loop being designed to fit and slide upon the rearwardly-extending arm A' of the drag-bar. It will be noticed that the tube G when in position occupies a position directly in rear of the bearing-point of the disk upon the ground.

In order to make the device as compact as possible, the tube G may be curved or made convex on one face to conform to the convex face of the disk, as shown in Fig. 5, so that the tube may lie close to the disk. A set-screw, spring, or any other suitable device may be employed to hold the tube in place upon the arm A'. The tube may at any time be slipped off or removed from the arm A', so that the machine may be used as a disk-harrow alone, without the seed-box and other devices.

Secured to the inner face of the drag-bar, at the inner end, is a sheet-metal scraper, I, which extends from the periphery to near the center of the disk on the upgoing side or side in rear



of the axle, the upper and lower edges of the scraper conforming to the concavity of the disk, so as to dislodge any particles adhering thereto, whether going forward or backward.

- 5 While it is deemed preferable to adopt the construction above set forth, because of the better support given the axles of the disks, it will be seen that good results may be secured with a single bar, a laterally-projecting stud or axle  
10 being secured thereto to carry the disk, and the seed-tube being secured to the same bar. Such construction is illustrated in Fig. 8. I desire it, therefore, to be understood that both forms are deemed as falling within the scope  
15 of my invention.

It is of course understood that the drag-bars will be pivoted at their forward end to the framing of the machine, and that springs or other suitable devices will be employed to maintain the drag-bars at proper distances apart,  
20 as is usual. However, as these features form no part of my invention, they are not described or shown.

Having thus described my invention, what I  
25 claim is—

1. In a seeder, the combination, with a drag-bar and a disk carried thereby, of a seed-delivery tube detachably secured to the drag-bar or to an arm thereof.
- 30 2. In combination with a two-part drag-bar, A A', a sleeve, C, extending from one arm of the drag-bar to the other, a disk, D, having its hub F mounted upon said sleeve, blocks E, mounted upon the arms of the drag-bar and  
35 encircling the ends of the hub, and a bolt, B,

passing through the arms, sleeve, and blocks, and serving to bind the parts together.

3. In combination with drag-bar A A' and disk D, carried thereby, a seed-delivery tube provided with an eye or loop adapted to fit  
40 upon one arm of the drag-bar.

4. In combination with drag-bar A A' and disk D, carried thereby, a seed-delivery tube provided with an eye or loop adapted to fit  
45 upon one arm of the drag-bar and hollowed out or made concave on the side next to the disk.

5. In a seeder, the combination, with a pivoted drag-bar (one or more) provided with rearwardly-extending arms A A', of a disk, D, carried by said arms at an angle to the line of  
50 draft, a seed-delivery tube mounted upon one of the arms, and a scraper secured to the other arm, substantially as shown.

6. In combination with a drag-bar, a disk mounted thereon, and a scraper and a seed-  
55 tube, also mounted upon the drag-bar, substantially as shown and described.

7. In combination with a drag-bar comprising arms A A', a sleeve, C, extending from one arm to the other, a disk, D, having its hub F  
60 mounted upon said sleeve, blocks E E, mounted upon the ends of the sleeve, each block being socketed to receive the hub F and the drag-bar, and a bolt, B, passing through the arms, sleeve, and blocks, substantially as shown.

DANIEL E. McSHERRY.

Witnesses:

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