

No. 624,119.

Patented May 2, 1899.

W. STEPHENSON.
SCRAPER FOR DISK SEED DRILLS.

(Application filed Dec. 27, 1898.)

(No Model.)

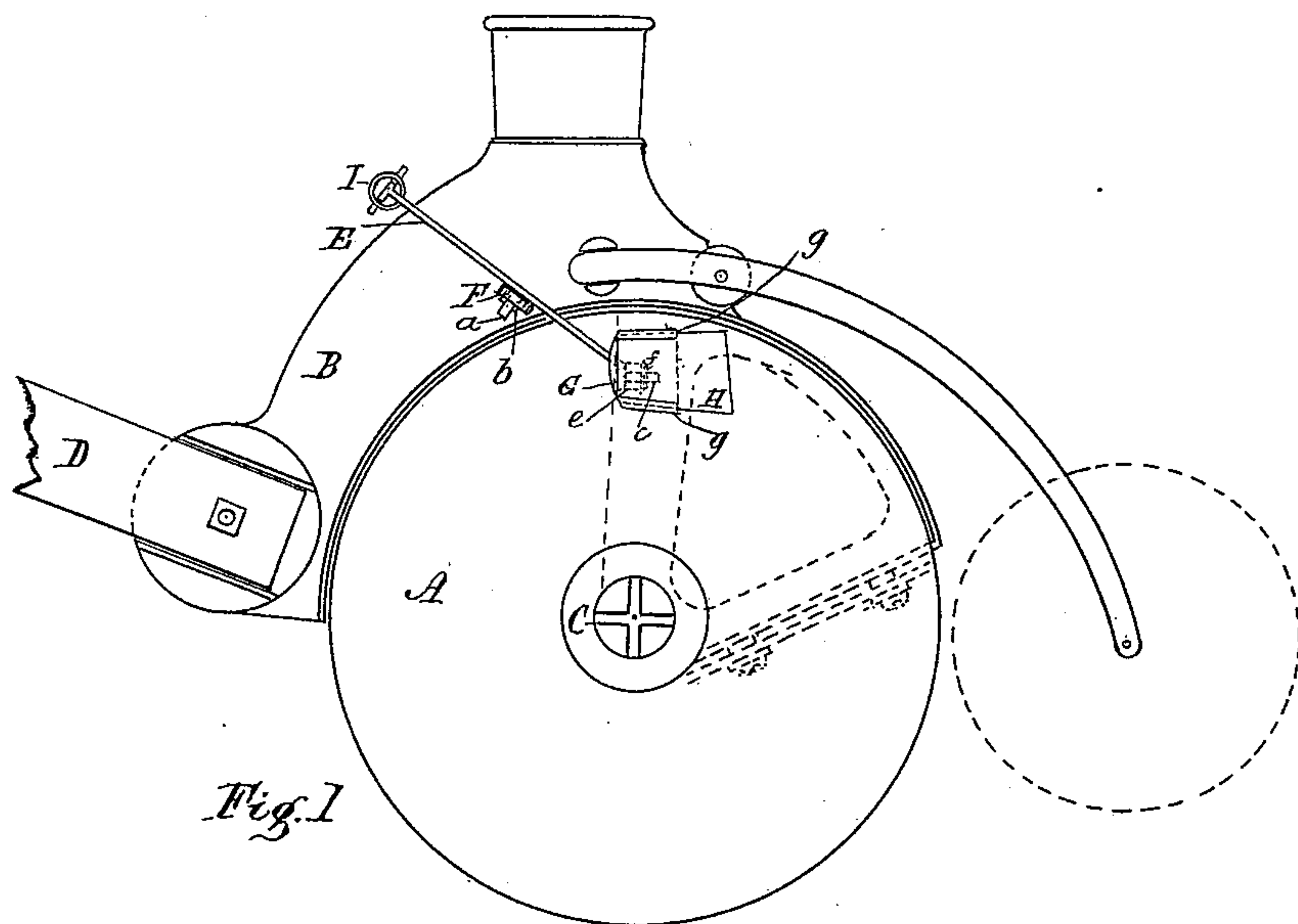


Fig. 1

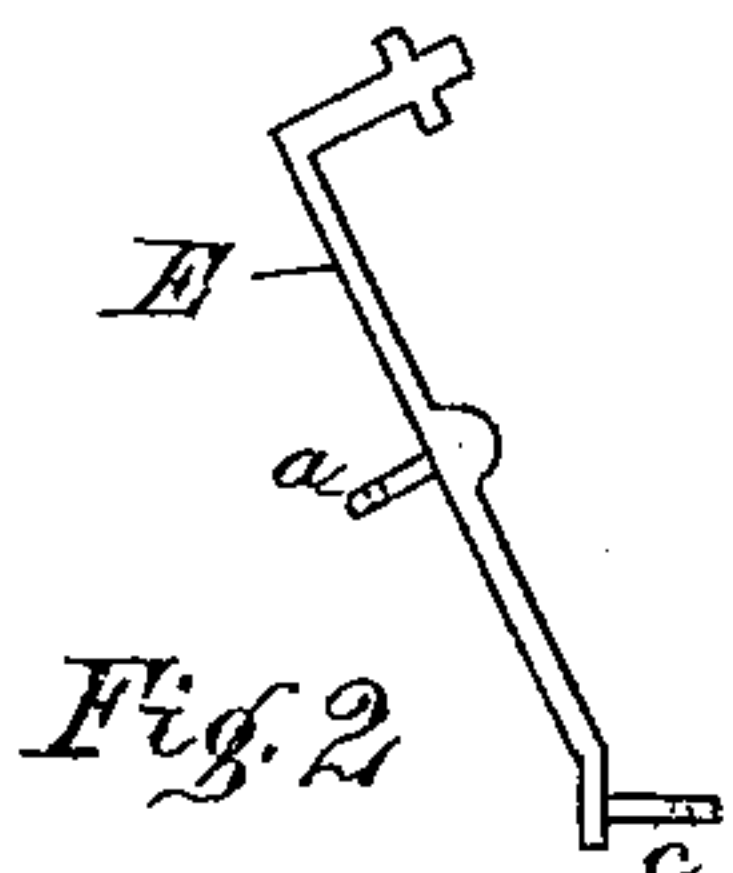


Fig. 2

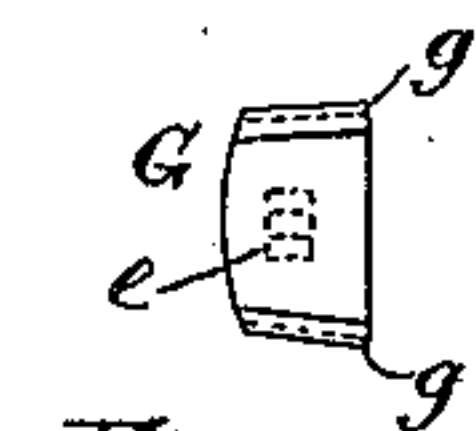


Fig. 3

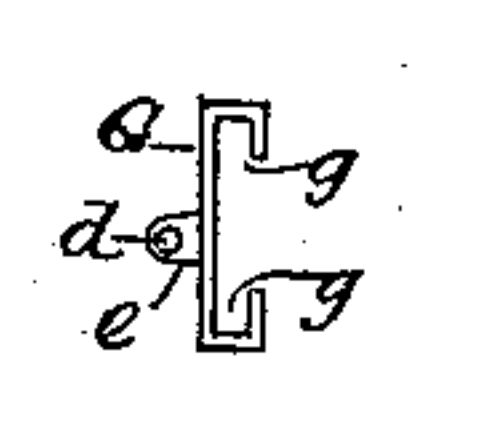


Fig. 4

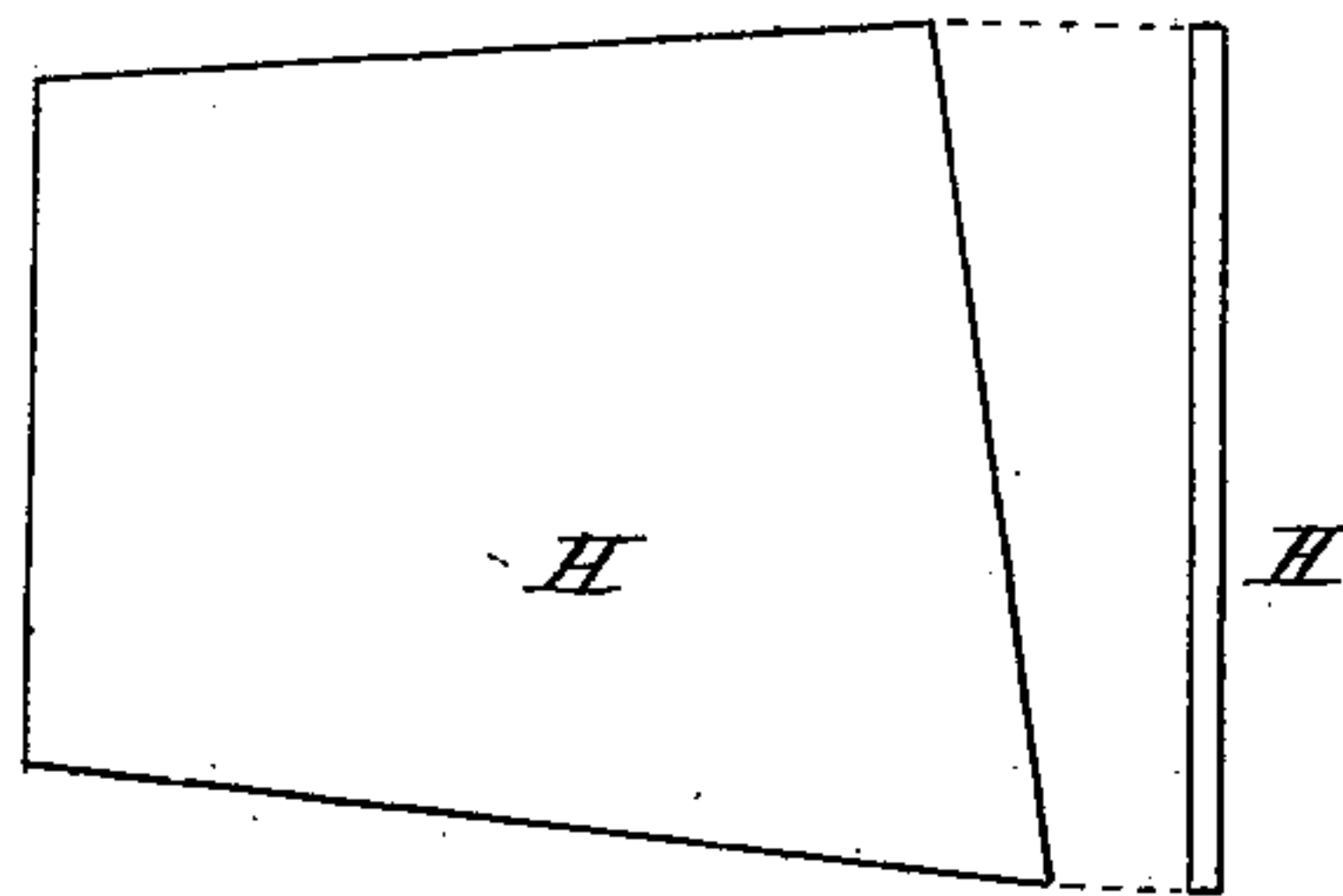


Fig. 7

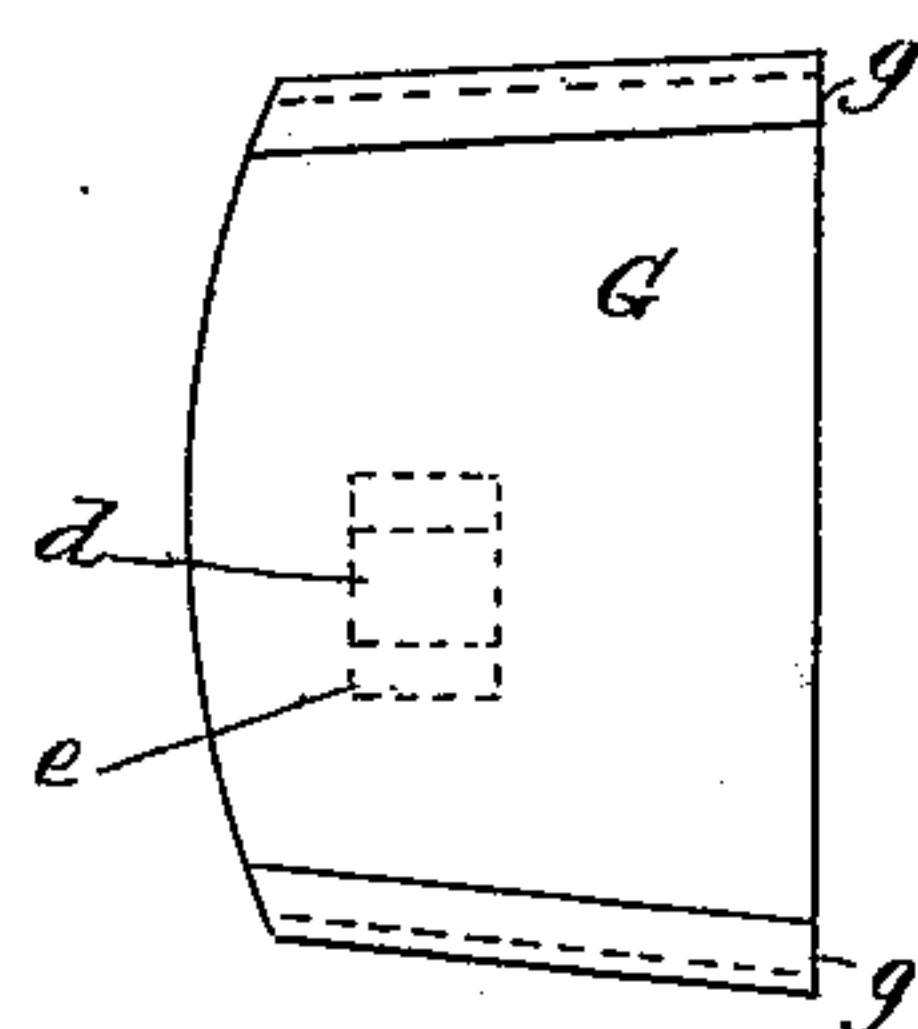


Fig. 5

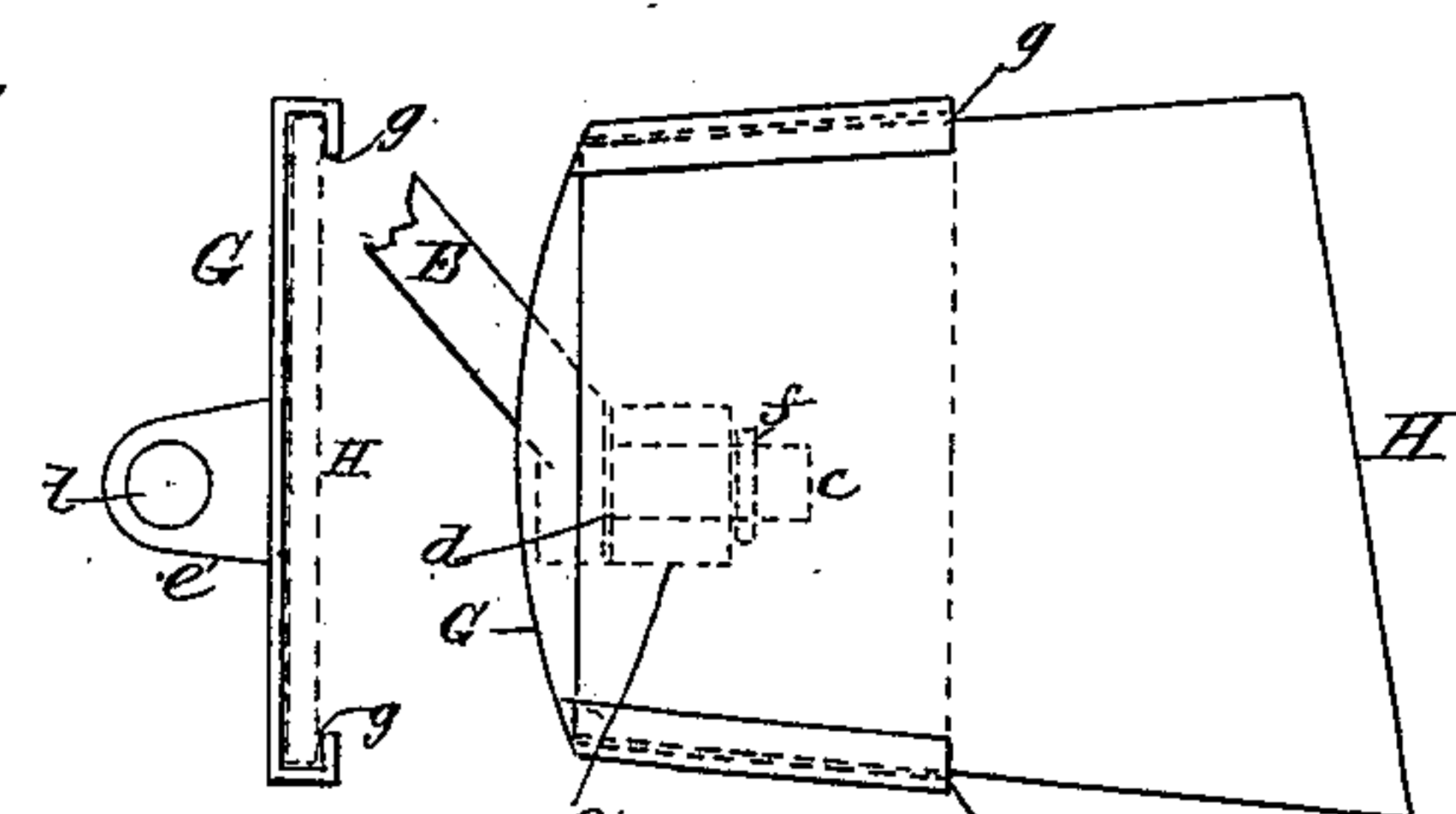


Fig. 6

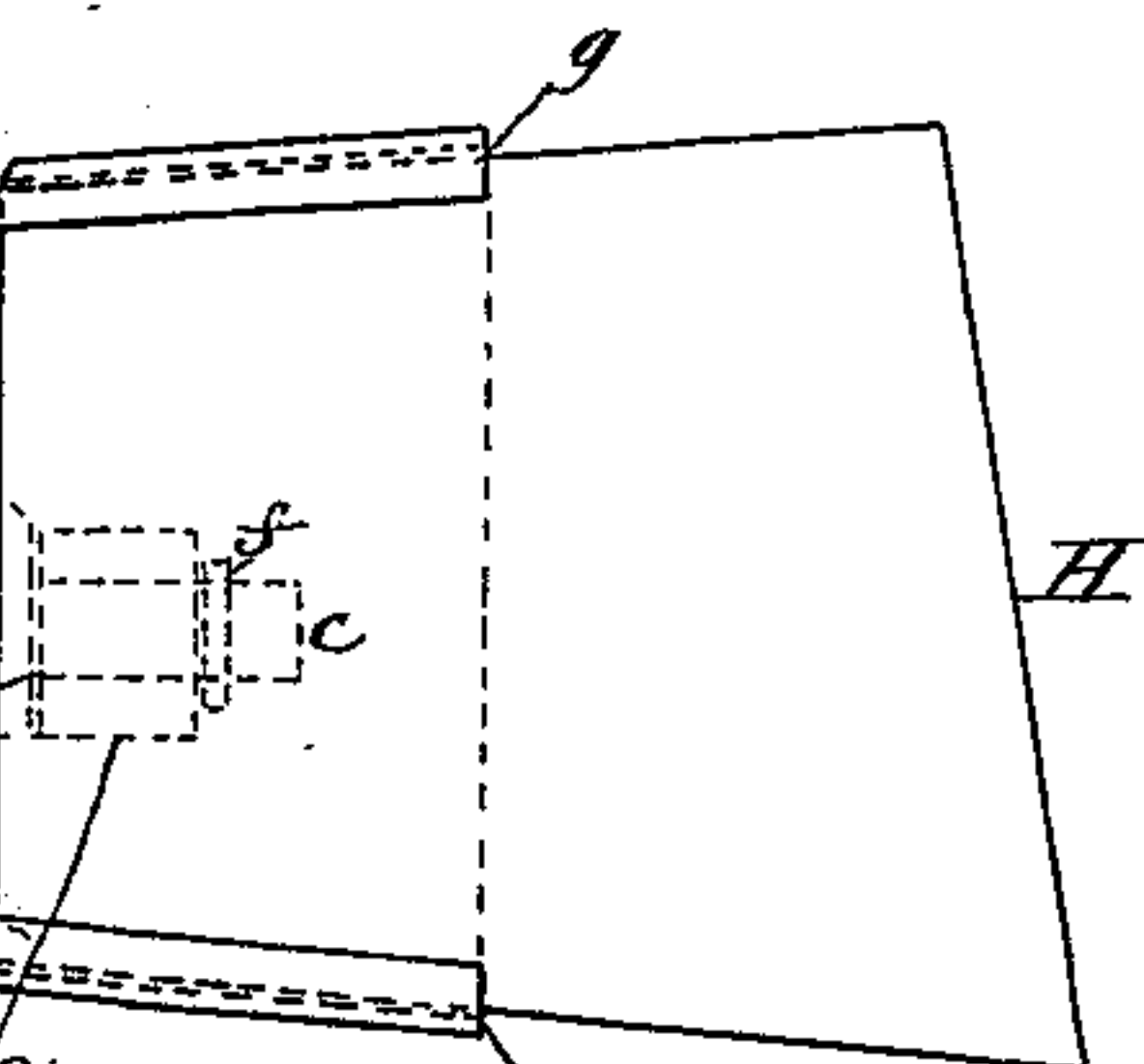


Fig. 8

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UNITED STATES PATENT OFFICE.

WILLIAM STEPHENSON, OF MORRIS, CANADA.

SCRAPER FOR DISK SEED-DRILLS.

SPECIFICATION forming part of Letters Patent No. 624,119, dated May 2, 1899.

Application filed December 27, 1898. Serial No. 700,449. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM STEPHENSON, a citizen of the Dominion of Canada, residing at Morris, in the county of Provencher, in the Province of Manitoba, Canada, have invented certain new and useful Improvements in Scrapers for Disk Seed-Drills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

The invention relates to further improvements on the scrapers of the class of machines above mentioned which will possess the following advantages: The scrapers when worn will be more easily and quickly replaced by new ones and more economical to manufacture, as there are no rivets employed, and my invention does away with drilling a number of holes in the parts. Much time is saved also in replacing worn scrapers, the change requiring no skilled labor to do it, which can be done in one-fiftieth of the time required to replace the scrapers constructed on the old plan.

The device consists in a scraper-holder plate pivoted to a similar scraper-lever to that shown in my former patent, No. 603,863, dated May 10, 1898, the said holder having converging grooves on its upper and lower sides to receive a glass scraper proper by simply inserting it in the grooves without any other attachment. A lug is cast on the back of the said holder, through which a hole is made by which to pivot the scraper-holders to the circular pin at the bottom of each lever, the spring at the top of the said levers pressing out the upper ends of the said levers and (as they are pivoted in the center to the grain-spout) causing the lower ends to converge and hold the scrapers in the holders by pressing them against the disks of the drill, as will be more fully shown hereinafter.

Reference being made to the accompanying drawings, Figure 1 represents a side view of my seed-drill shoe. Fig. 2 is a side view of the left lever. Fig. 3 is a front elevation of the scraper-holder detached. Fig. 4 is a vertical end view of the same. Fig. 5 is a front elevation of the scraper-holder enlarged to full size. Fig. 6 is an end view, full size, of the same. Fig. 7 is a side elevation of the scraper proper detached from the scraper-

holder. Fig. 8 is a front elevation of the scraper-holder detached from its lever, but with the glass scraper inserted in the grooves of the holder.

In the drawings, A represents one of two disks of my seed-drill. B is the grain-spout casting, having tapering axles upon which the disks are mounted, held on by a screw-cap C on each side.

D represents one of two draw-bars attached to the part B.

E is a lever (of which there are two, one for each scraper) pivoted to a lug F on the grain-spout B by a pivot-pin *a*, made to pass through the said lug F and kept in place by a cotter-pin *b*, inserted through a hole in the said pin *a*, while the lower end of each lever E has a pivot-pin *c* affixed thereto to be inserted through a corresponding hole *d* of the lug *e* on the rear of the scraper-holder G and held on the said pivot-pin by a cotter-pin *f*, passed through it. Thus a scraper-holder proper, G, is pivoted to the lower end of each of the scraper-levers E and in position to receive the scraper proper, H, which is shown detached at Fig. 7 and which consists of an irregular-shaped tapered plate having its small end inserted in the converging grooves *g g* of the scraper-holder, as shown. The said scraper H may be formed of any hard material, (of about the size and thickness shown at Fig. 7,) as sheet-steel; but I prefer glass as the material best suited to the requirements of the side scrapers, it presenting a smooth hard surface easy to form and convenient to replace when worn out, all being necessary to do is simply to draw out the worn one and insert a new one.

I is a spiral spring made to connect the upper ends of the scraper-levers E to cause their lower ends to converge to cause the impingement of the scrapers against the disks A.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a seed-drill, the combination with furrow-opening disks, of scraper-holders adjacent to the sides thereof and scrapers formed of glass removably mounted in the holders and bearing upon the side faces of the disks the scrapers being held from separation with the holders by their bearing on the disks, substantially as described.

2. In a seed-drill, the combination with disks of suitably-mounted scraper-holders, having grooves therein and scrapers formed of plate-glass contained within the grooves of the scraper-holders and bearing on the side faces of the disks, substantially as described.

3. The combination with a scraper-holder having converging grooves therein, of a scraper formed of a tapered plate contained within the converging grooves of the scraper-holder, substantially as described.

4. In a seed-drill, the combination with disks of suitably-mounted scraper-holders, having converging grooves therein, and scrapers formed of tapered plates of glass contained within the grooves of the scraper-holders and bearing on the disks, substantially as described.

5. In a seed-drill, the combination with disks, and a grain-spout, of levers pivoted upon the grain-spout, scraper-holders pivoted upon the levers, scrapers of glass removably carried by the scraper-holders, and means acting upon the levers to force the scrapers against the disks, substantially as described.

6. In a seed-drill, the combination with furrow-opening disks, of scraper-holders and scrapers formed of glass mounted on the holders and bearing on the side faces of the disks, substantially as described.

Hamilton, Ontario, Canada, December 12, 1898.

WILLIAM STEPHENSON.

Witnesses:

W. H. HOLMAN,

W. BRUCE.