

H. MOORE.
Grass-Seed Sowers.

No. 158,432.

Patented Jan. 5, 1875.

Fig. 1

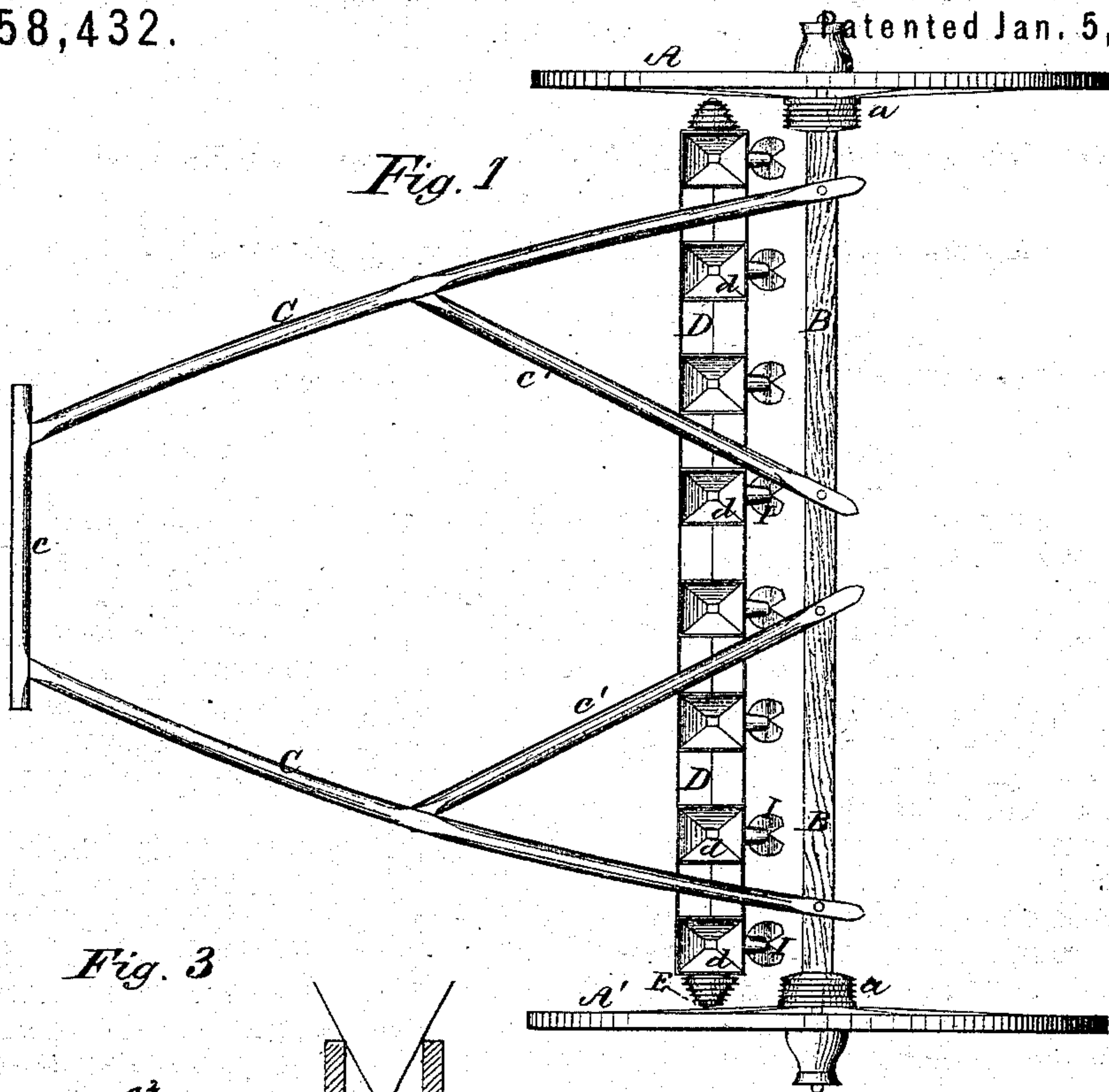


Fig. 3



Fig. 2

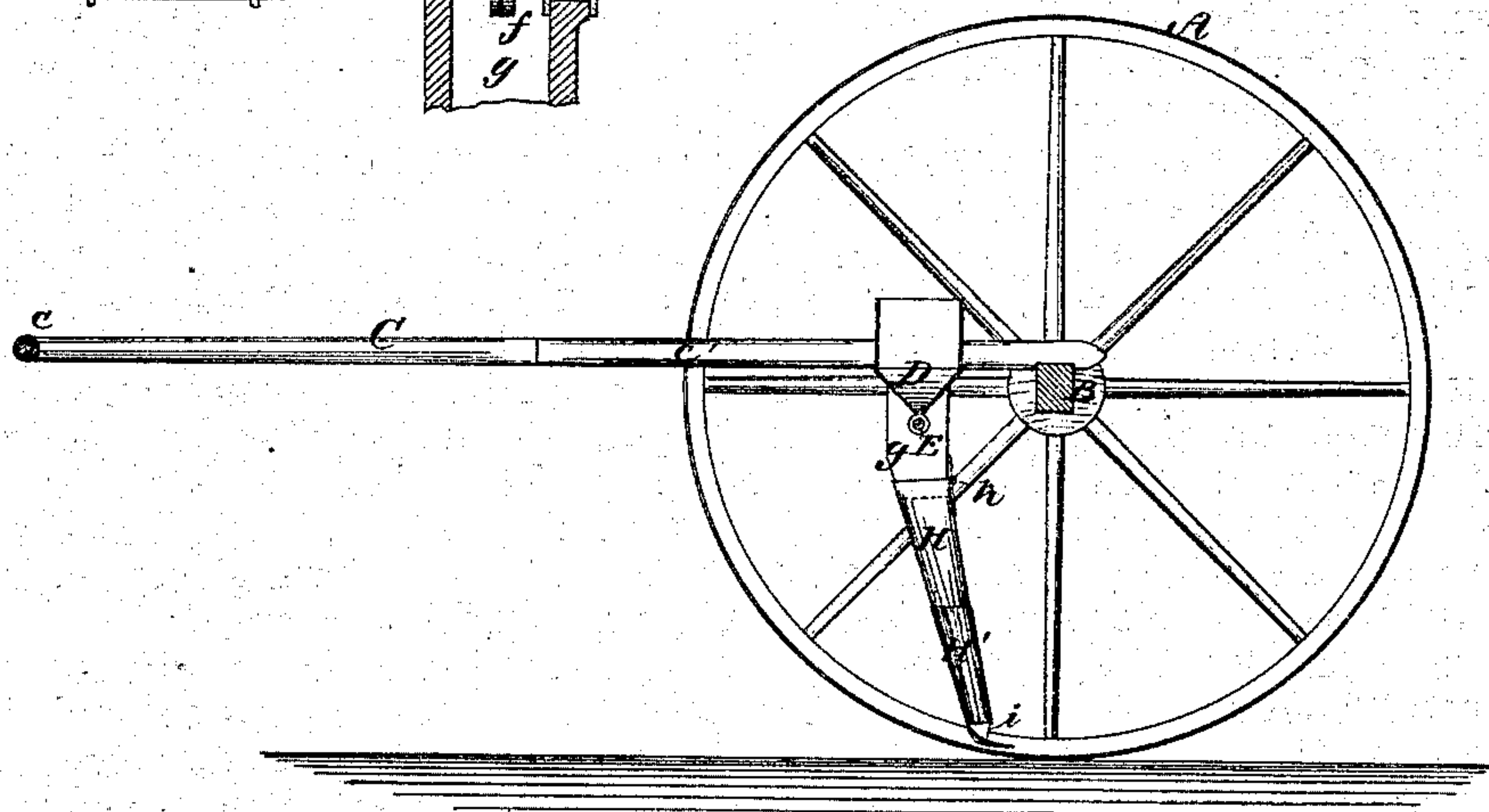
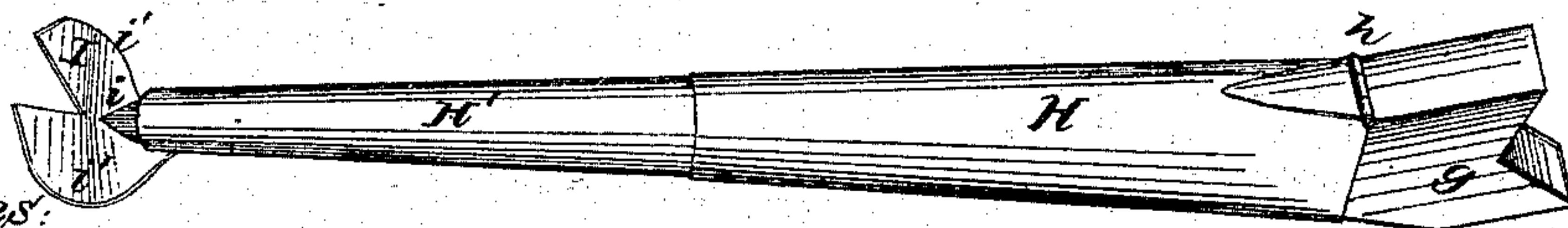


Fig. 4



Witnesses:

W. H. Rowe.
J. S. Peyton.

Inventor:

Hiram Moore
by his Atty
W. D. Baldwin

UNITED STATES PATENT OFFICE.

HIRAM MOORE, OF GREEN LAKE TOWNSHIP, GREEN LAKE COUNTY, WIS.

IMPROVEMENT IN GRASS-SEED SOWERS.

Specification forming part of Letters Patent No. **158,432**, dated January 5, 1875; application filed June 11, 1872.

To all whom it may concern:

Be it known that I, HIRAM MOORE, of the township and county of Green Lake, in the State of Wisconsin, have invented certain new and useful Improvements in Grass-Seed Sowers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of of this specification, and in which—

Figure 1 represents a plan or top view of my improved machine; Fig. 2, a vertical longitudinal section thereof; Fig. 3, a vertical central section through two of the seed-hoppers; and Fig. 4, a view in perspective, on an enlarged scale, of one of the seed-tubes.

The subject-matter claimed is hereinafter specified.

In the accompanying drawings, two wheels, A A', are shown as turning freely on an axle, B—say, about eleven feet long—formed of ordinary scantling. To prevent such an axle from sagging I prefer to brace it by a straining-rod applied to its under side in a manner well understood by builders of such machines. Two thills, C, attached to this axle, are connected in front by a cross-bar, c, and braced near the middle of their length by diagonal bars c', extending from the thills to the axle. A strong light draft-frame is thus secured, with room inside of it to receive a horse, which may be harnessed to the frame, by straps in front and rear, without using whiffletrees. The seed-trough D is composed of a continuous strip of sheet metal, bent into a V shape, and perforated in the angle at suitable intervals. This trough is secured to the thill-frame, each mutually strengthening the other, and is divided into hoppers d by suitable partitions.

By means of the thills and their braces it will be seen that the trough is supported at four points, close to the axle, the points of support being at or near each end, and on each side of the middle of the trough, which is thus prevented from sagging independently of the thills and braces.

A cord or band encircling a pulley, a, on the wheel, drives a pulley on a shaft, E, beneath the trough. I prefer to divide this shaft transversely into two equal sections, and to drive from each wheel. A roller, f, is arranged

beneath each hopper on the shaft, and in the seed-passage g. Each roller is grooved slightly on its periphery to allow the seed to pass. I prefer to unite each pair of rollers by mounting them on a short shaft, e, turning in a close box or bearing, e¹, in the seed-passage, and connected by means of a sleeve, e², overlapping the ends of the shafts, and secured thereto by a pin.

By this mode of construction the boxes tend to keep the rollers in proper relation to the seed-openings. The joint formed by the pin and sleeve allows a slight degree of play in the shafts, and the rollers are not thrown out of line by the sagging or springing of the frame or axle. The boxes also prevent the escape of fine grass-seed.

A tube, H H', is pivoted to each seed-passage by a joint, h, which allows the tube to flex backward when any obstacle is encountered. I prefer to make this tube in sections, the lower section, H', slipping over the other with a telescopic joint, as it can thus readily be turned or adjusted. The lower end of the tube is divided by a short vertical partition, i, to distribute the seed, which partition extends beyond the tube and abuts against a scattering-plate, I, of the peculiar form shown in the drawings. This plate consists of two wings, i', somewhat in the shape of a heart, bent into a circular curve, and flaring very slightly from the central partition outward.

By means of the partition i the seed, as they fall from the tube, are divided, and directed, in equal or nearly equal quantities, to each side or wing of the scatterer, from which they rebound in opposite directions. Were it not for the partition the seed would sometimes fall all on one side or wing of the scatterer, owing to the wind or inclination sidewise of the tube, and consequently the seed would be distributed on one side only.

In operation the seed drop through the tube, impinge upon these wings, rebound into the air, and fall upon the ground. Practice has demonstrated that with scatterers of this form the seed will be distributed with surprising uniformity, even over rough ground, on side hills, and in windy weather.

By my invention a boy and one horse will

sow from twenty to thirty acres per day, the width between the wheels being nearly, if not quite, ten feet.

I do not broadly claim thills inside of which a horse may travel, sectional feed-wheel shafts, or a scatterer; but

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

1. The combination of a seed-tube, an external winged scatterer, I, and a vertical partition between the scatterer and tube, these members being constructed to operate substantially as set forth.

2. The combination of the axle, the thills, the hopper, the sectional feed-wheel shaft, and the sleeve and pins connecting the shaft-sections, these members being constructed and operating substantially as set forth.

In testimony whereof I have hereunto subscribed my name.

HIRAM MOORE.

Witnesses:

JOE I. PEYTON,
E. C. DAVIDSON.