

(No Model.)

C. P. YODER & C. C. CARMEN.

HAND BROADCAST SEEDER.

No. 277,861.

Patented May 15, 1883.

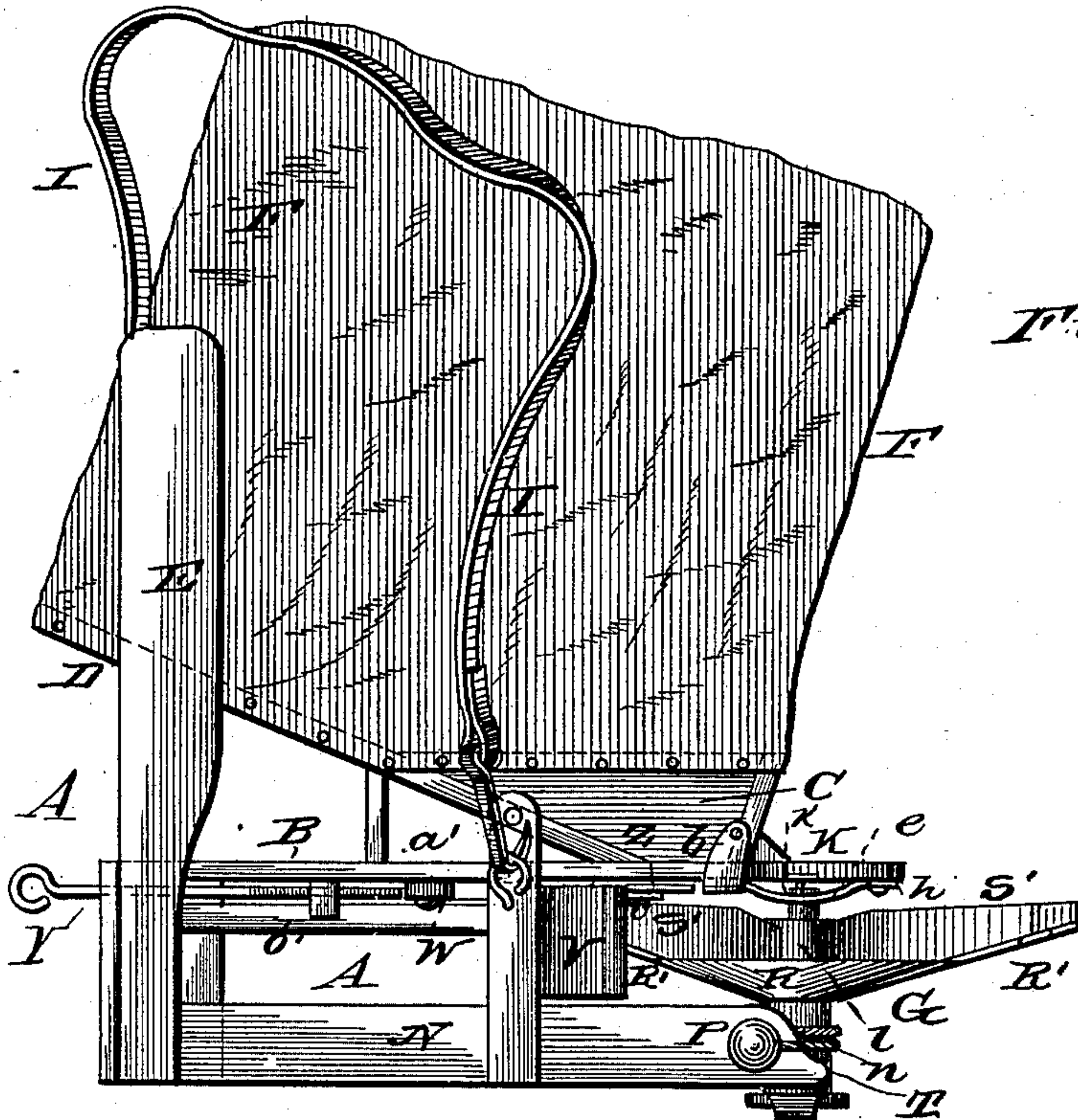


Fig. 1.

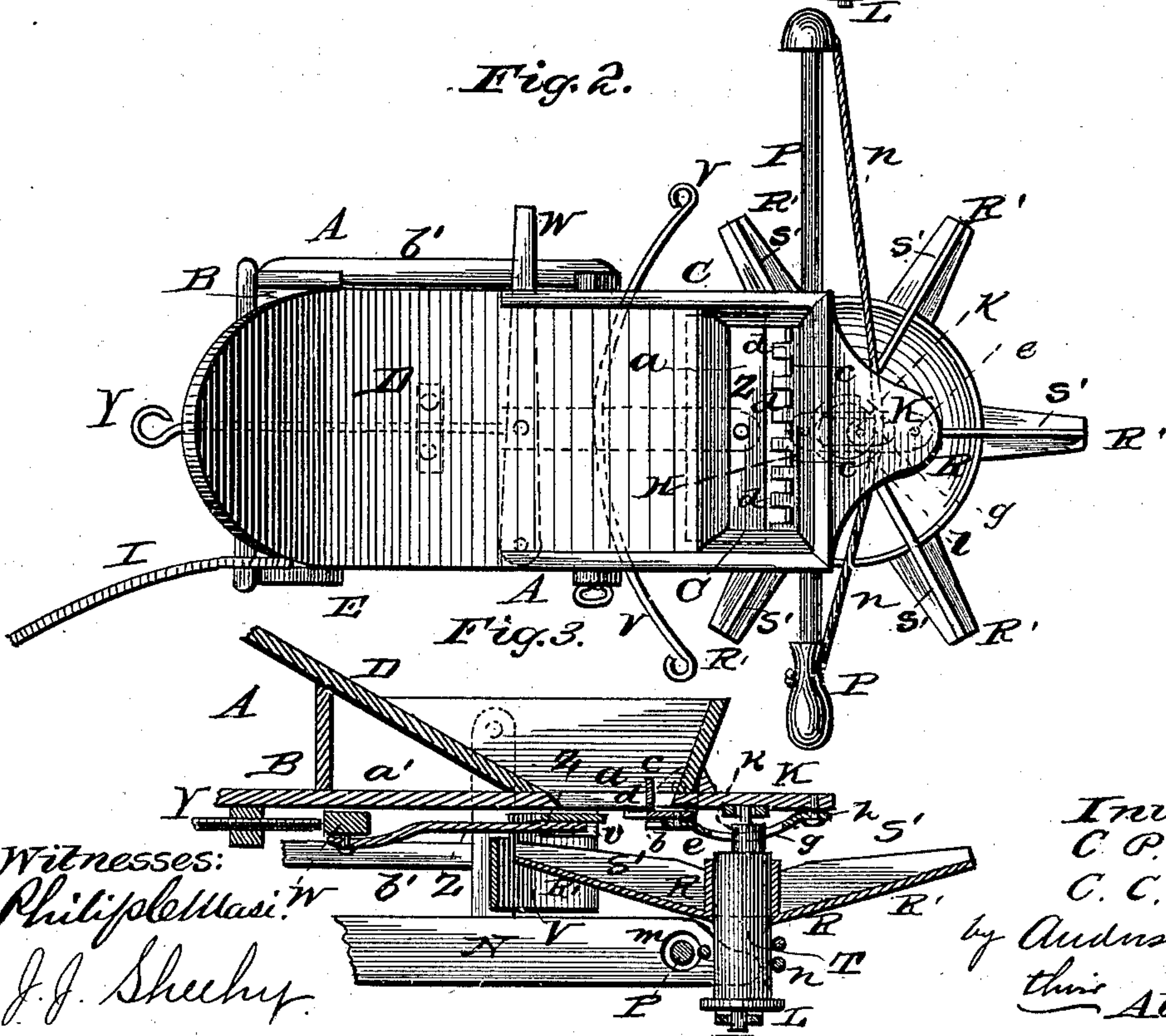


Fig. 2.

Witnesses:  
Philip Lettasi  
J. J. Sheehy

Inventors:  
C. P. Yoder,  
C. C. Carmien,  
by Audus Smith  
their Attorneys.



# UNITED STATES PATENT OFFICE.

CHRISTIAN P. YODER AND CHARLES C. CARMEN, OF GOSHEN, INDIANA.

## HAND BROADCAST-SEEDER.

SPECIFICATION forming part of Letters Patent No. 277,861, dated May 15, 1883.

Application filed December 9, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, CHRISTIAN P. YODER and CHARLES C. CARMEN, both citizens of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Hand Broadcast-Seeder; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a side view of our device. Fig. 2 is a top view of the same, and Fig. 3 is a vertical sectional view.

This invention has relation to hand broadcast-seeders; and it consists in the construction and novel arrangement of parts hereinafter fully described, and particularly pointed out in the claim appended.

In the annexed drawings, the letter A designates the main frame, consisting of a base, B, throat-hopper C, inclined chute D, and rear lateral standard, E.

To the inclined chute-board D is attached the lower edge of the bag F, the upper portion of which is connected to the standard E, which serves to hold it sufficiently raised for easy access, and to prevent it from falling over laterally.

In the front portion of the hopper C is made a transverse slot, *a*, to provide for the passage of the seed to the rotary sower-wheel G below.

In guides *b*, arranged under the front of the hopper, is seated the front throat-plate, H, which extends transversely across the front of the slot *a*. This plate is formed with alternate vertical teeth *c* and horizontal teeth *d*, the former being bent up at right angles to the latter. This plate has a reciprocating motion horizontally and transversely, being operated by means of a pivoted arm, *e*, which is curved downward and slotted, as indicated at *g*, and extends forward to a bearing, *h*, whereby it is pivoted to the front end of a projection, K, which is formed on the front of the main frame. This arm, being curved downward, engages by its slot *g* an eccentric, *k*, on the vertical stem

of the sower-wheel G, said stem being pivoted by its upper journal to a bearing on the under face of the projection K of the frame, and by its lower journal to a cross-bar, L, below. This cross-bar connects the forwardly-extending lower arms, N, of the frame, in which are made perforations *m*, which serve as bearings for the reciprocating rod P, to the ends of which the operating cord or strap *n* is attached.

The sower-wheel is cone-shaped in its central base portion, R, from which extend radial arms R', which support radial vertical separating-walls S', extending to the nut portion T, the lower portion of which is spool-like, and extends below the conical bottom R to engage the operating-cord *n*.

A curved guard, V, extends transversely under the main frame in rear of the sower-wheel, its ends projecting somewhat laterally, as shown in the drawings.

The rear throat-plate, Z, is T-shaped, its head extending across the throat, and being connected to the bottom of the hopper-front by the clamp-guides *v v*, which may be provided with clamp-screws to secure the adjustment of the plate Z when necessary. This plate is arranged at a slightly lower level than the front throat-plate, and is formed with a plain front edge, designed to pass under the teeth of the front throat-plate in closing the throat or seedway. The rear arm of the T-shaped plate is connected to a transverse lever, W, which projects from the frame, between its bottom board, *a'*, and the pinch-bar *b'*, and serves to enable the operator to adjust the T-shaped plate in regulating the feed by the approximation thereof to the toothed edge of the front throat-plate.

A micrometer-screw, Y, extends from the rear end of the frame under the bottom board, and, abutting against the lever W, serves to facilitate a nice adjustment of the T-shaped throat-plate when running.

The machine is adapted to be carried by means of a shoulder-strap, I, and is operated by giving a reciprocating movement to the transverse rod, which effects a vibratory rotation of the sower-wheel, and at the same time moves the agitator-plate at the front of the throat.

We are well aware that it is not new to construct a centrifugal seed-sower with a vibratory wheel and eccentric operating an agitator-plate, and we do not broadly claim such devices. A toothed feed-plate having a slotted arm and operated by an eccentric at the upper end of the spool or hub of the distributing-wheel is also known, and is not sought to be claimed herein.

What we claim, and desire to secure by Letters Patent, is—

In a hand broadcast-seeder, the combina-

tion, with the front (transverse agitator-plate having the alternate vertical and horizontal teeth, of the downwardly-curved slotted pivoted arm *e* and the eccentric of the sower-wheel stem, substantially as specified. 15

In testimony whereof we affix our signatures in presence of two witnesses.

CHRISTIAN P. YODER.

CHARLES C. CARMEN.

Witnesses:

A. S. ZOOK,

LOW W. VAIL.