W. J. KEENEY.

Improvement in Seeders.

No. 130,507. Patented Aug. 13, 1872.

Fig. 1.

Fig. 2.

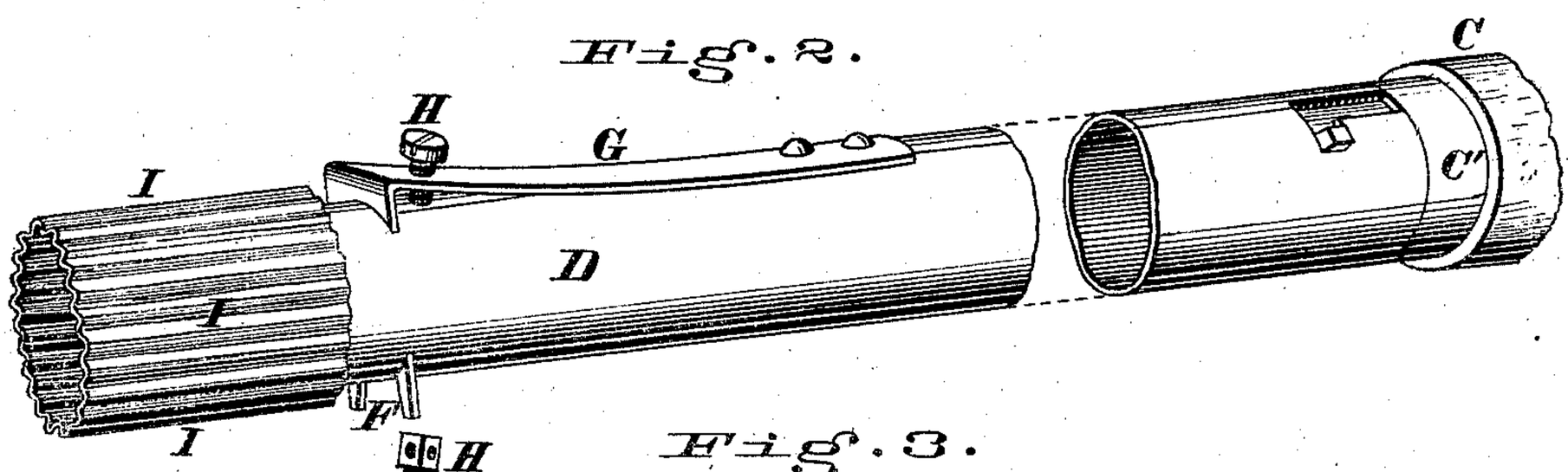


Fig. 3.

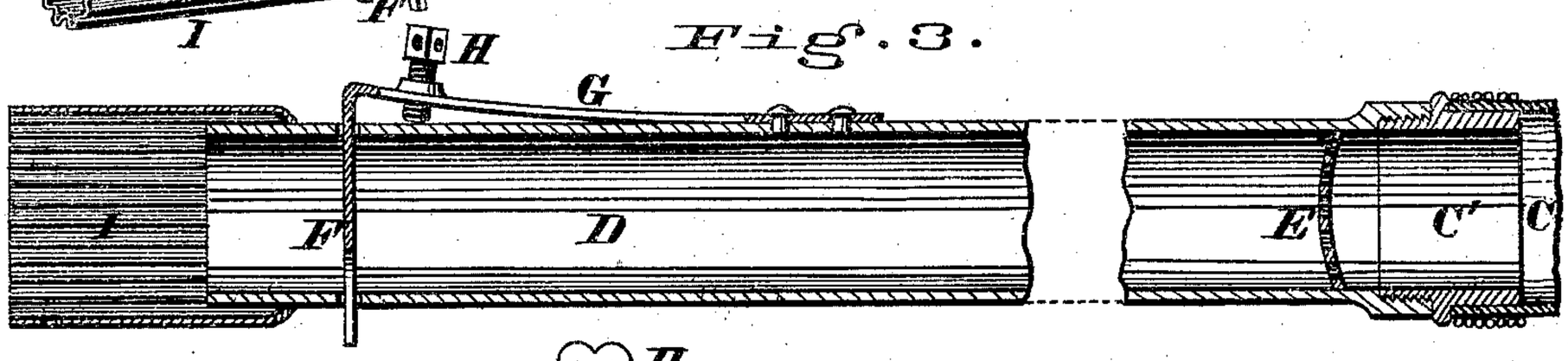
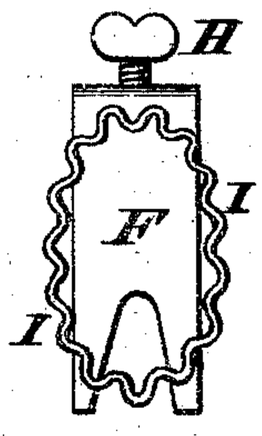


Fig. 4.



Wm J. Keeney
by Knight Bros.
Att'ys.

Attest.
Jas. H. Layman.
Walter Allen

UNITED STATES PATENT OFFICE.

WILLIAM J. KEENEY, OF FLORENCE, INDIANA.

IMPROVEMENT IN SEEDERS.

Specification forming part of Letters Patent No. **130,507**, dated August 13, 1872.

Specification of a new and useful Improvement in Broadcast-Sowers, invented by me, WILLIAM J. KEENEY, of Florence, Switzerland county, Indiana.

This in an improvement on the broadcast sowing apparatus, which consists, essentially, of a tin or other suitable discharging spout or nozzle which communicates, by means of a flexible tube, with a bag or haversack which contains the grain or seed to be sown. My improvement consists in providing such spout with a grooved or channeled delivery to secure an even and wide, and, at the same time, free delivery of the grain or seed.

In the accompanying drawing, Figure 1 is a perspective view of my broadcaster in operation. Fig. 2 is a perspective view of the spout with a portion of the flexible tube, a portion of the spout being broken away. Fig. 3 is a longitudinal section of the same parts, but with a screw-threaded instead of a bayonet connection, a portion of the spout being broken away. Fig. 4 is an end view of the spout.

A may represent a bag or haversack, of convenient form and dimensions, and adapted to be slung over the operator's shoulder by means of a strap, B. Secured to and communicating with the lower right-hand corner of this haversack is a flexible tube, C, (preferably of India rubber,) terminating in a neck or collar piece, C′, for the attachment of a spout or nozzle, D, preferably of "tin." The coupling or attachment of the spout D to the neck C′ may be by means of a bayonet-joint, as in Fig. 2, or by means of a screw-thread, as in Fig. 3. The spout D may be provided, at some convenient part of its length, with a screen, E, of wire-gauze or perforated sheet metal to prevent the passage of other kinds of grain or other foreign matters of larger size than the seed itself. The spout has near its ventage, or at least at some place in advance of the screen where one is employed, a notched or otherwise suitably-formed gate, F, which may be attached to the exterior of the spout by means of a spring, G, whose resilience tends to close the gate and thus contract the ventage, except as it is held open by a set-screw, H. That portion of the spout which is in advance of the gate is formed with a series of longitudinal grooves or channels, I, covering its interior surface and opening freely outward, which being struck by the escaping seeds operate to scatter the same.

The above-described preferred form of my implement may be modified in non-essential particulars. For example, the spout may be formed of wood or of cane; or it may flare or converge from its receiving to its discharging end. That portion which contains the screen may be enlarged so as to compensate in area for the obstruction created by the screen; or the screen may be omitted altogether. The spout may be either in one piece, as shown, or in several sections, screwed or otherwise united end to end.

The operation of my device is as follows: The discharging-aperture being gated to its proper size for proper delivery, the haversack is charged with the seed to be sown and slung over the right shoulder in such a way as for the sack to depend under and in front of the left arm. The operator then, advancing over the field to be sown, swings the spout from side to side so as to impart a centrifugal outward motion to the seed. In order that the motion of the body may coact with that of the right arm the latter is swung to the right at every advance of the left foot, and to the left at each advance of the right foot.

The amount of vibrations and proper elevation of the spout are soon acquired by practice.

I claim as new and of my invention—

The tube D, provided with the corrugated mouth-piece I and gate F in combination, substantially as described.

In testimony of which invention I hereunto set my hand.

WM. J. KEENEY.

Witnesses:

GEO. H. KNIGHT,

JAMES H. LAYMAN.