D. EBERLY.

Grain-Drill.

No. 7,034. Patented Jan. 22, 1850.

Fig. 1.

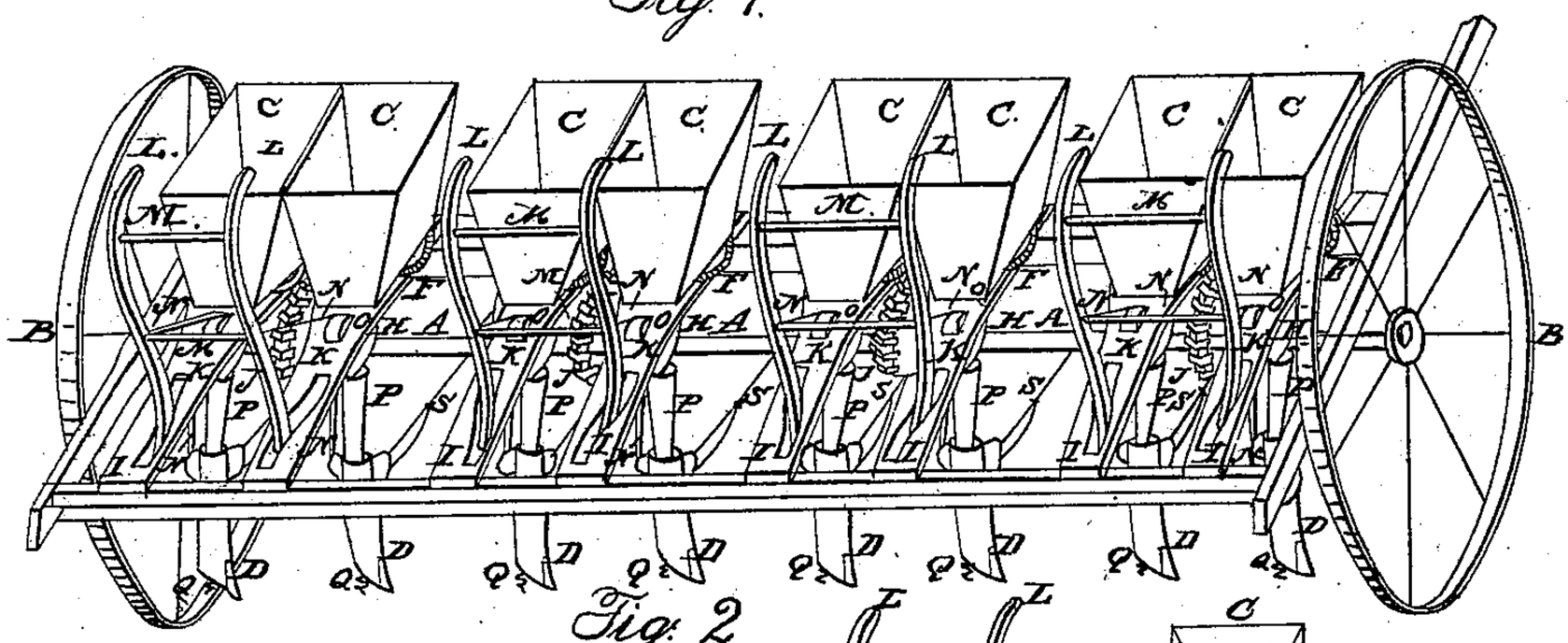


Fig. 2.

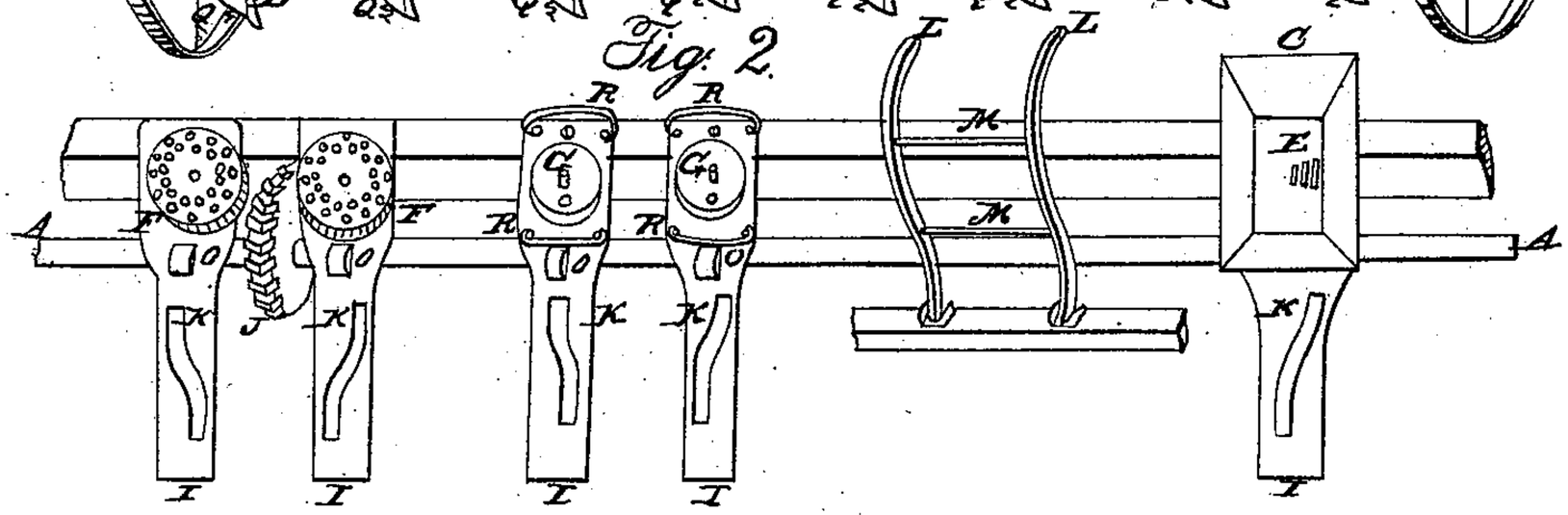
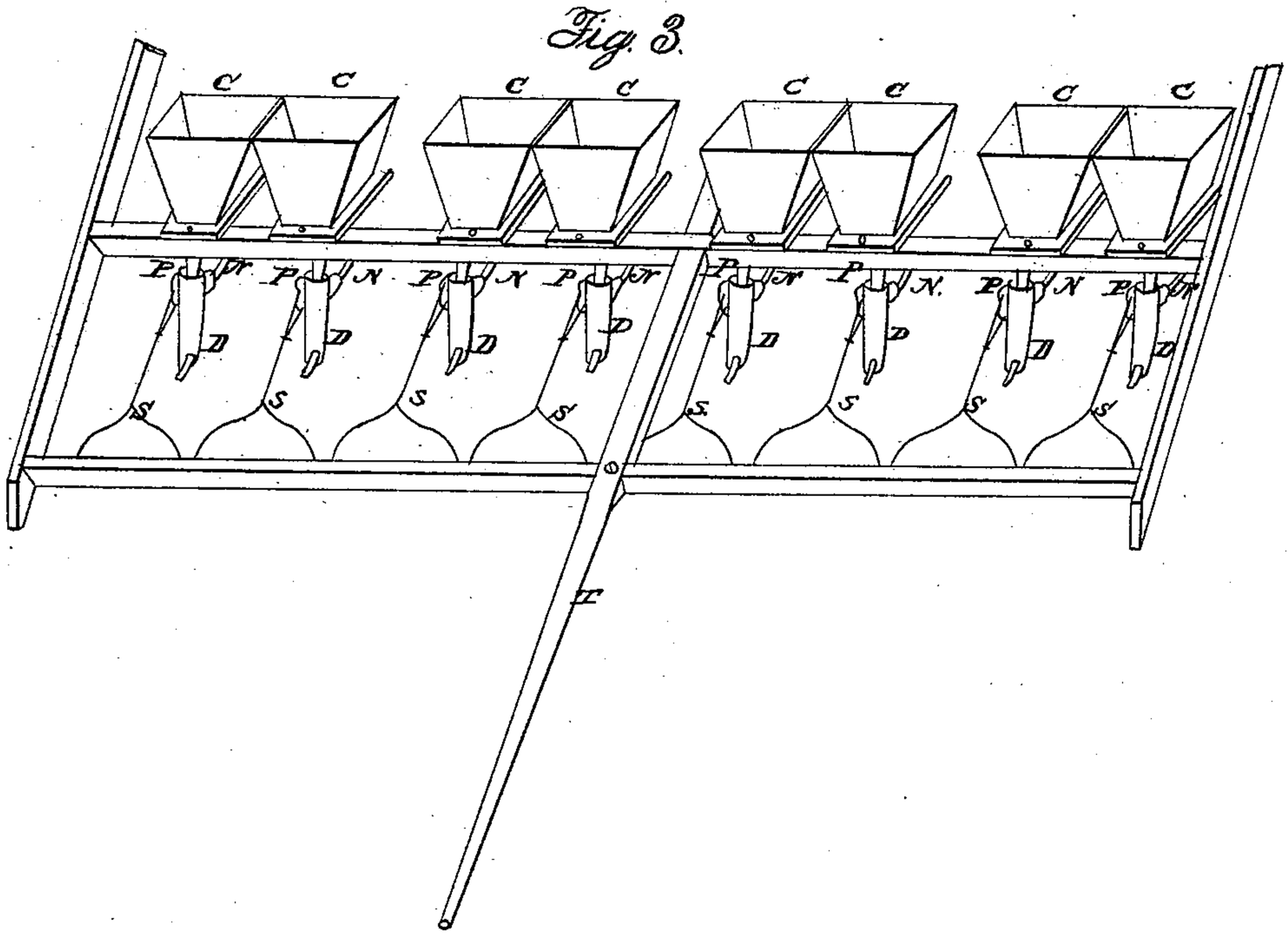


Fig. 3.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DAVID EBERLY, OF STRASBURG, PENNSYLVANIA.

IMPROVEMENT IN GEARING AND UNGEARING SEEDING APPARATUS.

Specification forming part of Letters Patent No. **7,034**, dated January 22, 1850.

To all whom it may concern:

Be it known that I, DAVID EBERLY, of Strasburg borough, county of Lancaster, State of Pennsylvania, have invented new and useful Improvements to the Grain-Drill; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the grain-drill; Fig. 2, sectional parts of the same, and Fig. 3 a front view.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my machine of white-oak frame-work, resting upon an iron axle-tree, A, with carriage-wheels B. I have eight hoppers, C, and eight plows or shovels, D, through which the grain is distributed. The bottom of the hopper has three oblong apertures, E, from one and one-half inch to two and one-half inches long, for the grain to pass through. Underneath the bottom of the hopper is a cast-iron horizontal bevel-cog wheel, F, containing twenty-four circular holes at equal distances apart, twelve outside holes about one-half an inch in diameter, and twelve inside intermediate holes three-fourths of an inch in diameter, for small and larger grain. These cog-wheels F operate upon a shaft the upper end of which extends into the bottom of the hopper, and the lower end resting in the center of a cast-iron circular raised plate, G, upon which the cog-wheel fits, and its correct and regular motion maintained. The circular plate G has an aperture four inches in diameter near the outside of the circle, over which the twenty-four holes revolve, and through which aperture the grain falls into the funnels H underneath. This circular plate G rests firmly fastened to the hopper-board I. The bottom of the hopper C is held by four screws, one at each corner, to the hopper-board I. There are four double bevel-cog wheels, J, attached to the axle-tree A, which operate between the hoppers C and hopper-boards I upon the horizontal bevel cog-wheels F. Each end of the hopper-board I rests upon the frame-work. One end is held by a screw-bolt to the frame-work. The other end slides from right to left, and vice versa, on the hind part of the frame-work. The hopper-board I has a bias curved aperture, K, through which the handle or curved lever passes. Two handles or curved levers, L, are joined and connected by two iron rods, M, thus forming a double lever, L, and by drawing the double lever L backward the hopper-boards I are widened and slide apart, and the horizontal cog-wheels F are immediately moved off from the double bevel-cog wheel J, and the shovels D are raised, the machinery is thrown out of gear, and the seeding is stopped.

To the handles of the lever L are attached two leather straps, N, which pass over two small pulleys, O, inserted in the hopper-board I immediately in front of the hopper C, and extend and are fastened to the top of the shovels D underneath, which lower and raise the same.

Underneath the hoppers C are the tin funnels H, fastened to the hopper-boards I, from which leather funnels or tubes P extend into the hollow shovels D to conduct the grain through.

To the lower ends of the leather tubes P are attached spiral springs Q, which project beyond the mouth or lower end of the shovels D, for the purpose of scattering the grain more and throwing off clods of earth and other obstructions which frequently stop up the shovels and prevent the grain from passing through.

R are brackets or posts, held by the four screws to steady the hopper and keep it from touching the horizontal wheel; S, the draft-irons attached to shovels and front part of frame-work; T, the tongue of the carriage. The double lever L rests and works upon a screw-bolt attached to frame-work.

I do not claim the four double bevel-cog wheels J or the horizontal bevel-cog wheels F as my invention, as they have been heretofore used in machinery, and are old devices; but

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

The devices used herein for gearing and ungearing the seeding apparatus, as described.

DAVID EBERLY.

Witnesses:

SAMUEL M. KING,
J. FRANKLIN REIGART.