(No Model.)

J. S. SHERIDAN.

SEED DRILL.

No. 398,459. Patented Feb. 26, 1889.

Fig. 1.

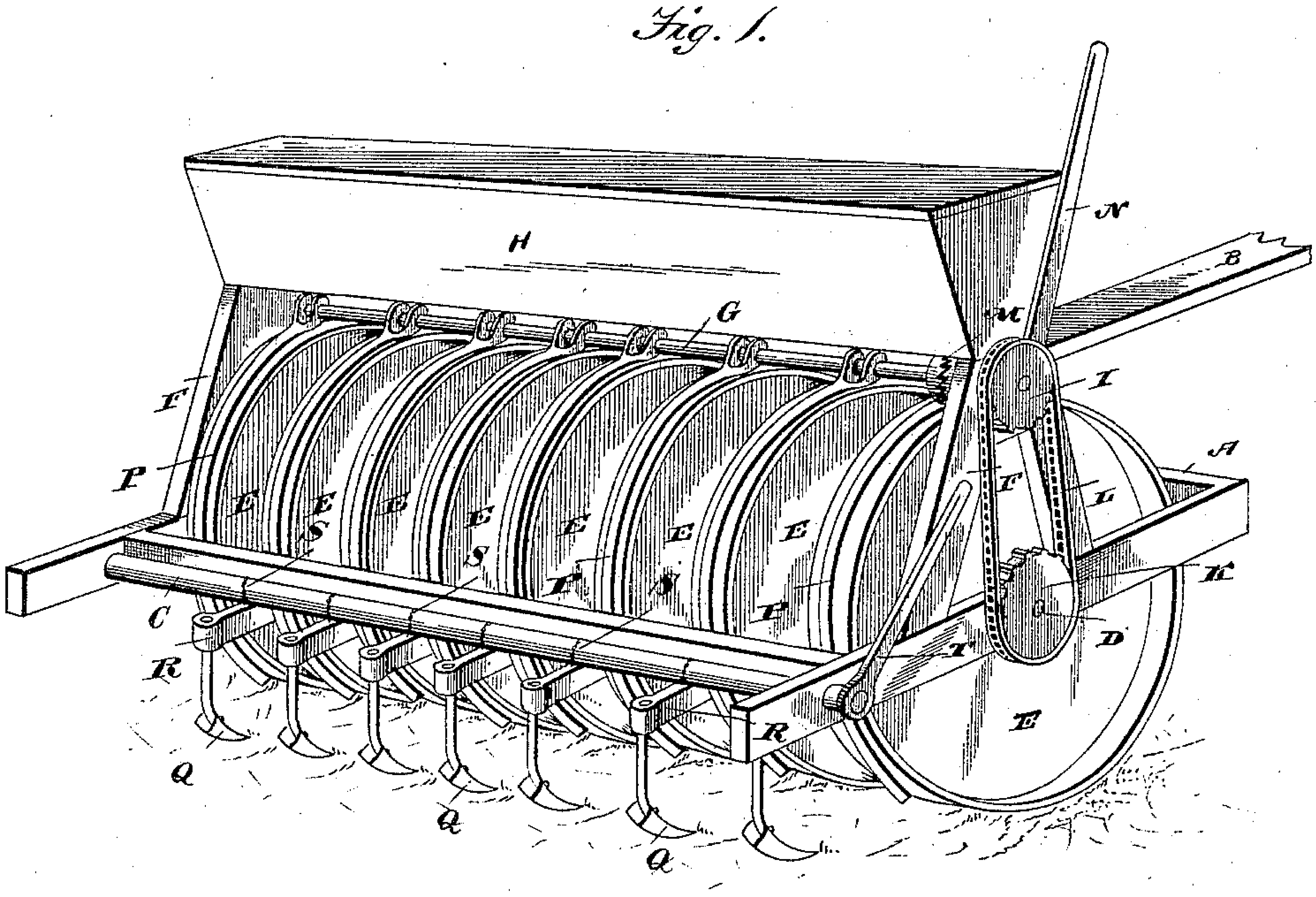
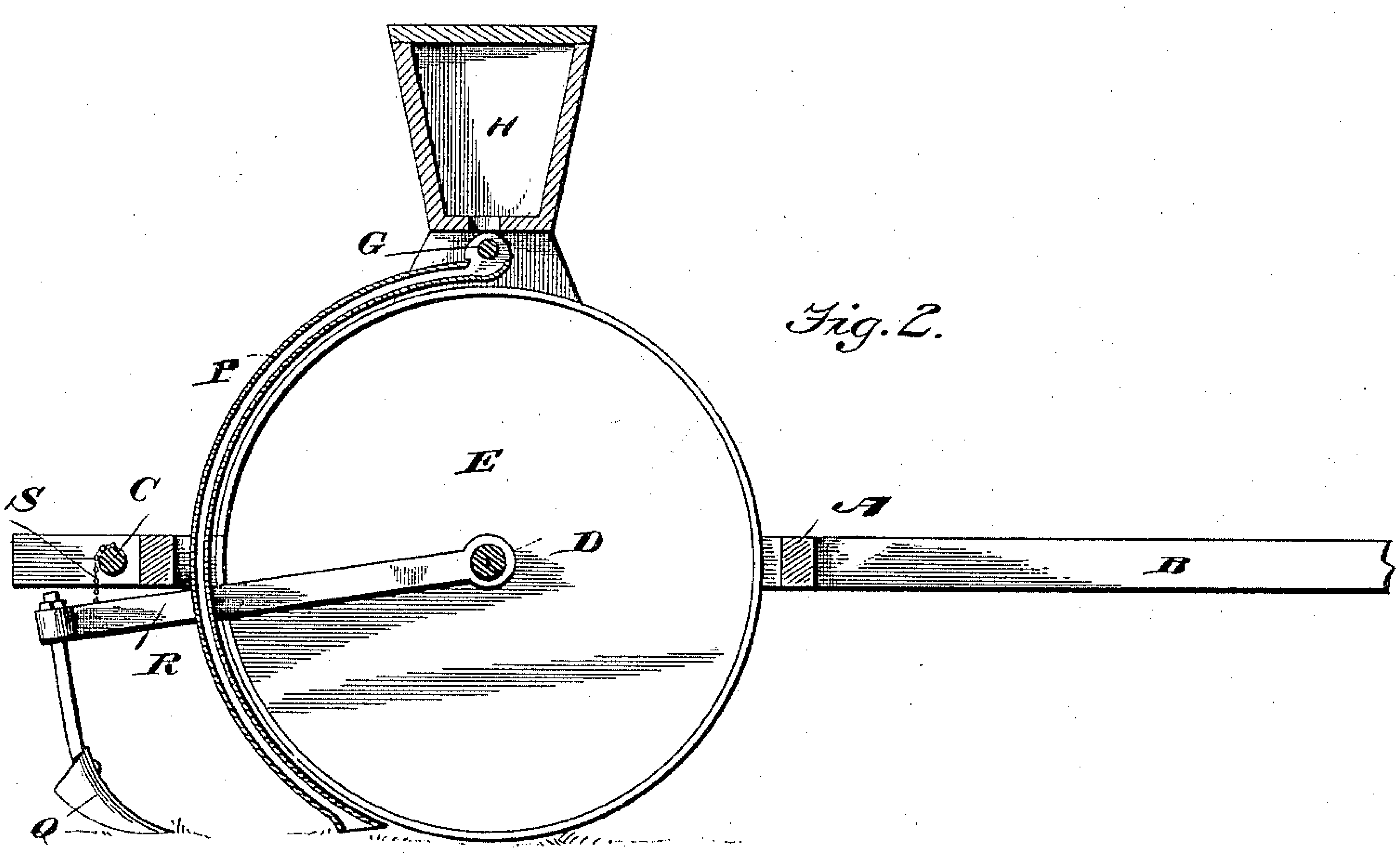


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN S. SHERIDAN, OF COLUMBIA, DAKOTA TERRITORY.

SEED-DRILL.

SPECIFICATION forming part of Letters Patent No. 398,459, dated February 26, 1889.

Application filed September 26, 1888. Serial No. 286,436. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. SHERIDAN, a citizen of the United States, residing at Columbia, in the county of Brown and Territory of Dakota, have invented certain new and useful Improvements in Seed-Drills; and I 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.

This invention has relation to improvements in seed-drills; and it has for its object to provide a drill of any suitable size in which rollers are employed in advance of the seed-tubes, so that the earth may be compressed prior to the dropping of the seed, thereby rendering a solid base, as it were, to receive the seed, which is afterward covered during the travel of the machine. This object I accomplish by the means shown and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the machine constructed according to my invention, and Fig. 2 is a vertical cross-sectional view of the same.

Referring by letter to the said drawings, A indicates a rectangular frame, which should be of a size according to the number of rollers and drill-tubes to be employed. This frame is provided at its forward end with a suitable draft beam or tongue, B, and its lateral beams have journaled in their rearwardly-extended ends a rock-shaft, C, for a purpose which will be presently explained.

D indicates a horizontal shaft, which is journaled in the lateral beams of the main frame, and is designed to receive a suitable number of rollers, E. These rollers may be of any suitable size, but preferably about three feet in diameter, and have a periphery about three inches thick, over which may be placed a suitable metallic tire These rollers are preferably arranged loosely upon the shaft D, so that they may turn freely without obstruction thereon, yet being very effective in packing the earth sufficiently to form a solid body for the reception of the grain as it is planted.

Rising from the lateral beams of the main frame A, and from opposite points are standards F, upon which is journaled a seed-shaft, G, and above this shaft is a suitable hopper, H, for the reception of the grain or seed. The hopper may be of the construction usually employed in seed-drills, and the shaft is designed to receive rotation by means presently explained, so as to agitate the seed at the discharge-apertures of the hopper and allow it to freely enter the conveyer-tubes, from which it is discharged closely in rear of the rollers.

The shaft G and the shaft D are provided at their adjacent ends with sprocket-wheels I and K, and these sprocket-wheels are connected by means of an endless belt or chain, L, so that when motion has been received from the main shaft D it may be imparted to the grain-shaft G.

Upon the shaft G is a clutch, M, which may be of the construction usually employed, and a hand-lever, N, is used for the purpose of throwing the clutch in and out of engagement, so that the machine may be transported or carried from place to place when desired without the grain-shaft being brought into operation.

P indicate the seed-tubes, which are suitably secured at their upper ends to the bottom of the hopper and below the discharge-apertures thereof, there being one tube arranged in rear of each wheel or roller. These tubes are curved, as shown, to lie in close relation to the rear of the wheels or rollers, and their lower ends are expanded, as better shown in Fig. 2 of the drawings, so that the seed as it is deposited upon the compact earth will be spread the width of the said rollers.

Q indicate covering plows or shovels. These shovels have their vertical stems or branches secured to the outer end of an arm, R, the opposite ends of which are journaled on the main shaft D.

The arms R are connected near their outer ends, by means of chains S, with the rock-shaft C, which shaft is provided with a hand-lever, T, arranged within convenient reach of the operator, so that by a single thrust of the arm he may raise all of the plows out of the ground, or allow them to descend, as desired, the chains of the plows winding upon the shaft when it is desired to elevate them.

It will be observed that I arrange a plow between each set of rollers, so that the seed deposited upon the earth may be covered.

Having described my invention, what I claim is—

In a grain-drill, the combination, with the main frame, of the shaft D, journaled therein, the rollers secured to the shaft, said rollers having broad peripheries as distinguishable from a tapering periphery and bound with tires, the hopper supported above the rollers, the seed-tubes having a sweeping curvature and leading from the base of the hopper to the earth in close relation to the respective rollers, and the covering-shovels journaled on the shaft and connected with a rock-shaft by chains, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. SHERIDAN.

Witnesses:

EDWD. F. MCCOY,

T. W. BOWMAN.