(No Model.) 3 Sheets—Sheet 1.

O. L. PETERSON.

WHEAT DRILL.

No. 445,076. Patented Jan. 20, 1891.

Fig. 1.

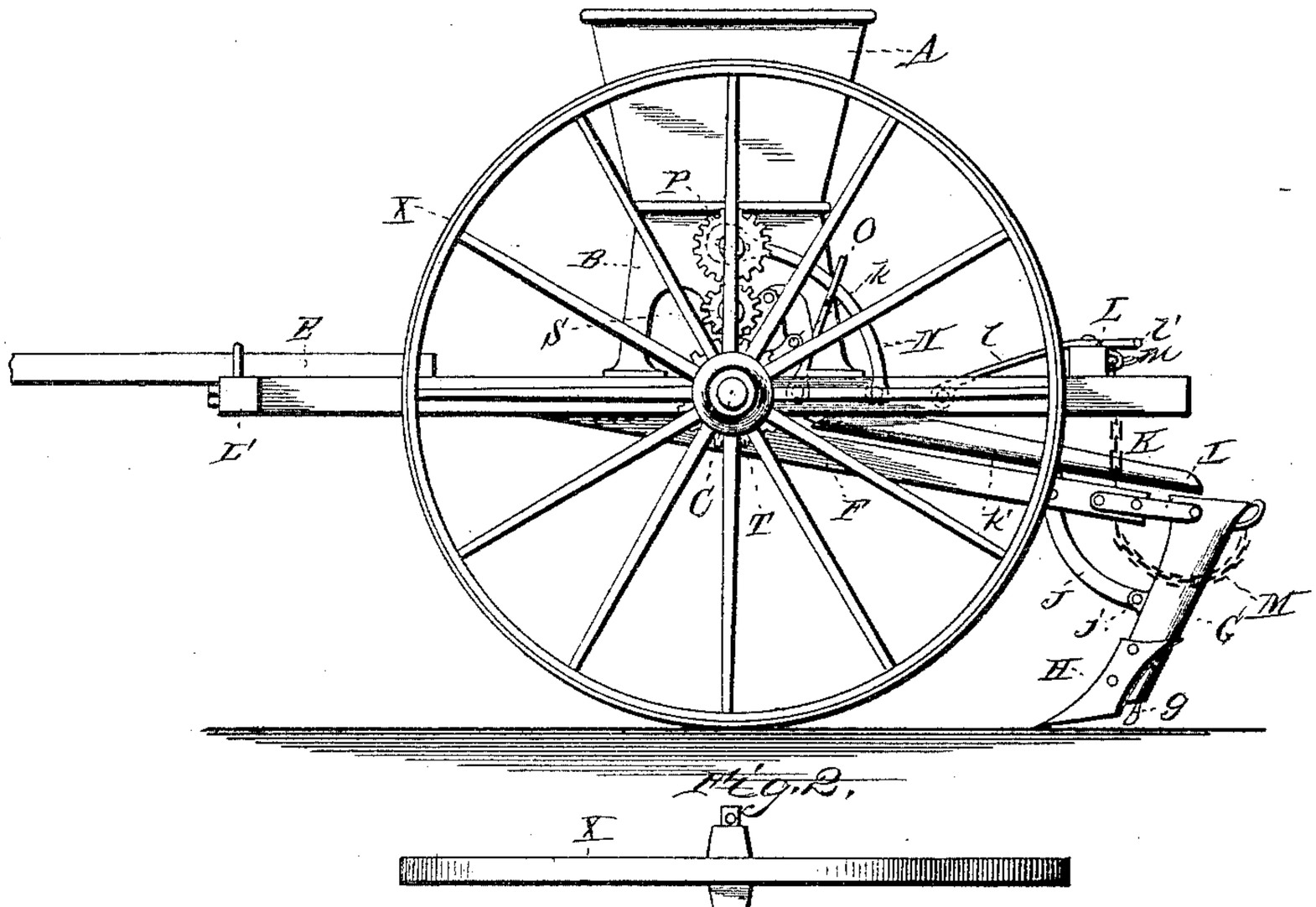

Fig. 2.

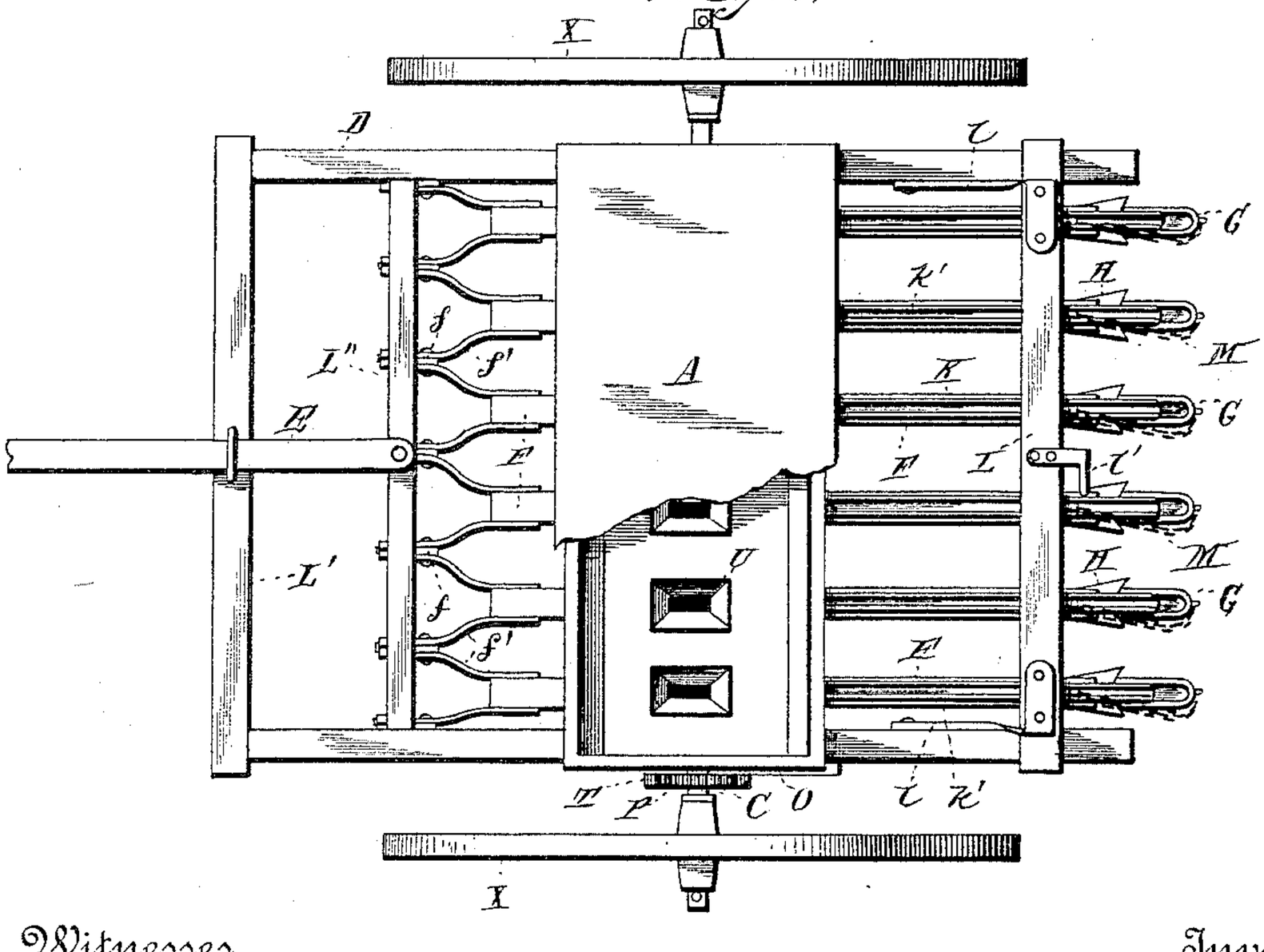

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Fig. 3.

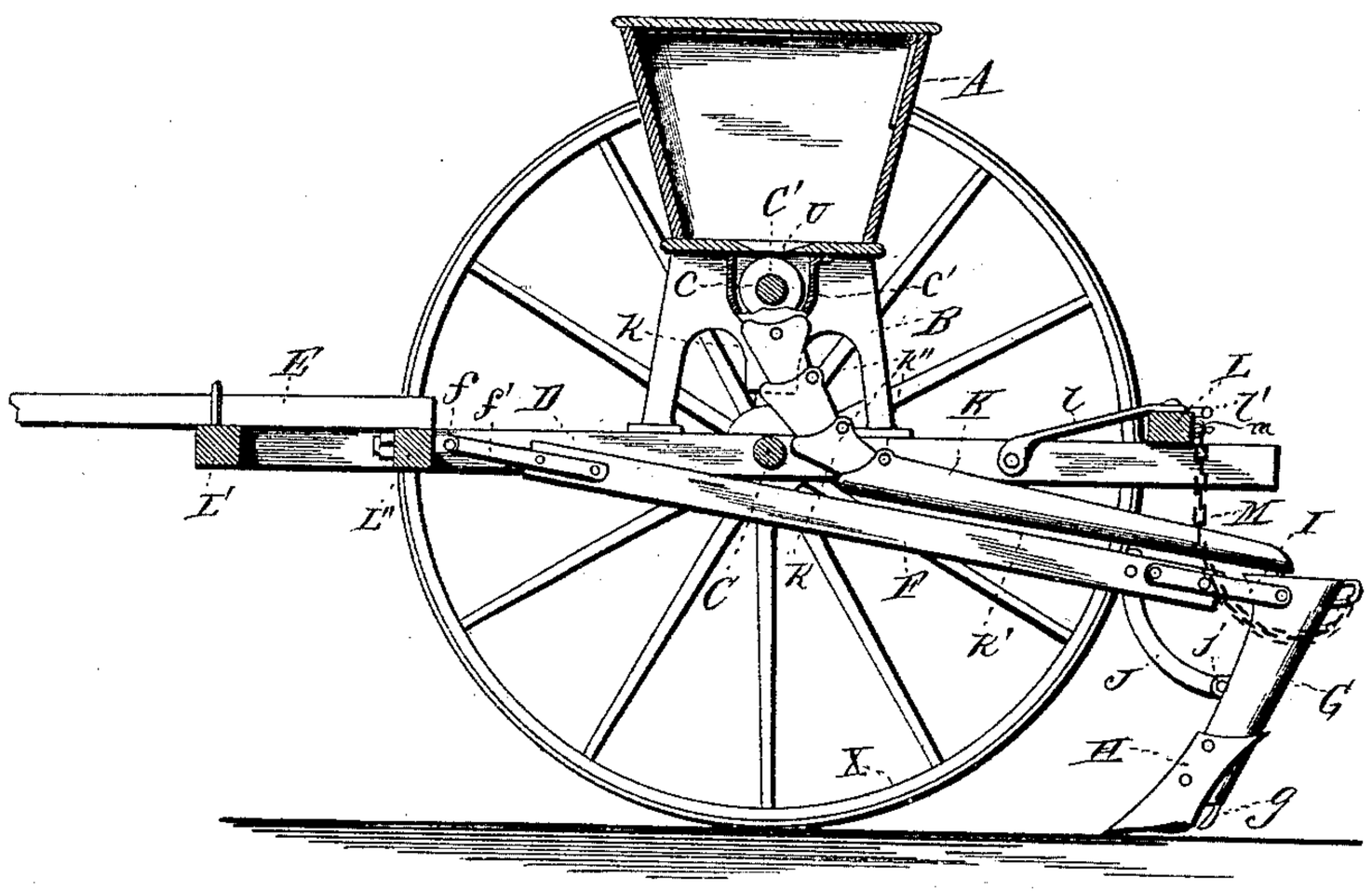

Fig. 4.

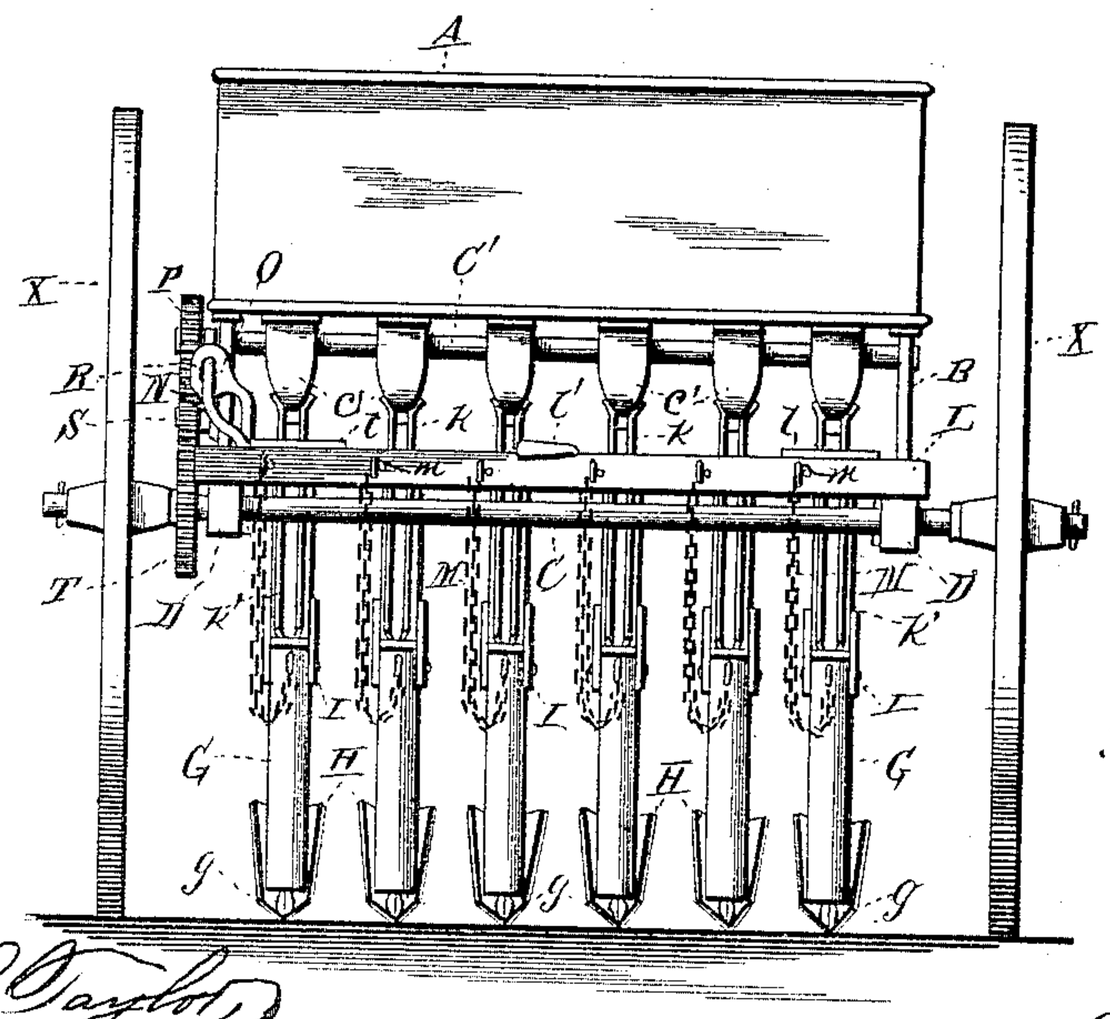

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Fig. 5.

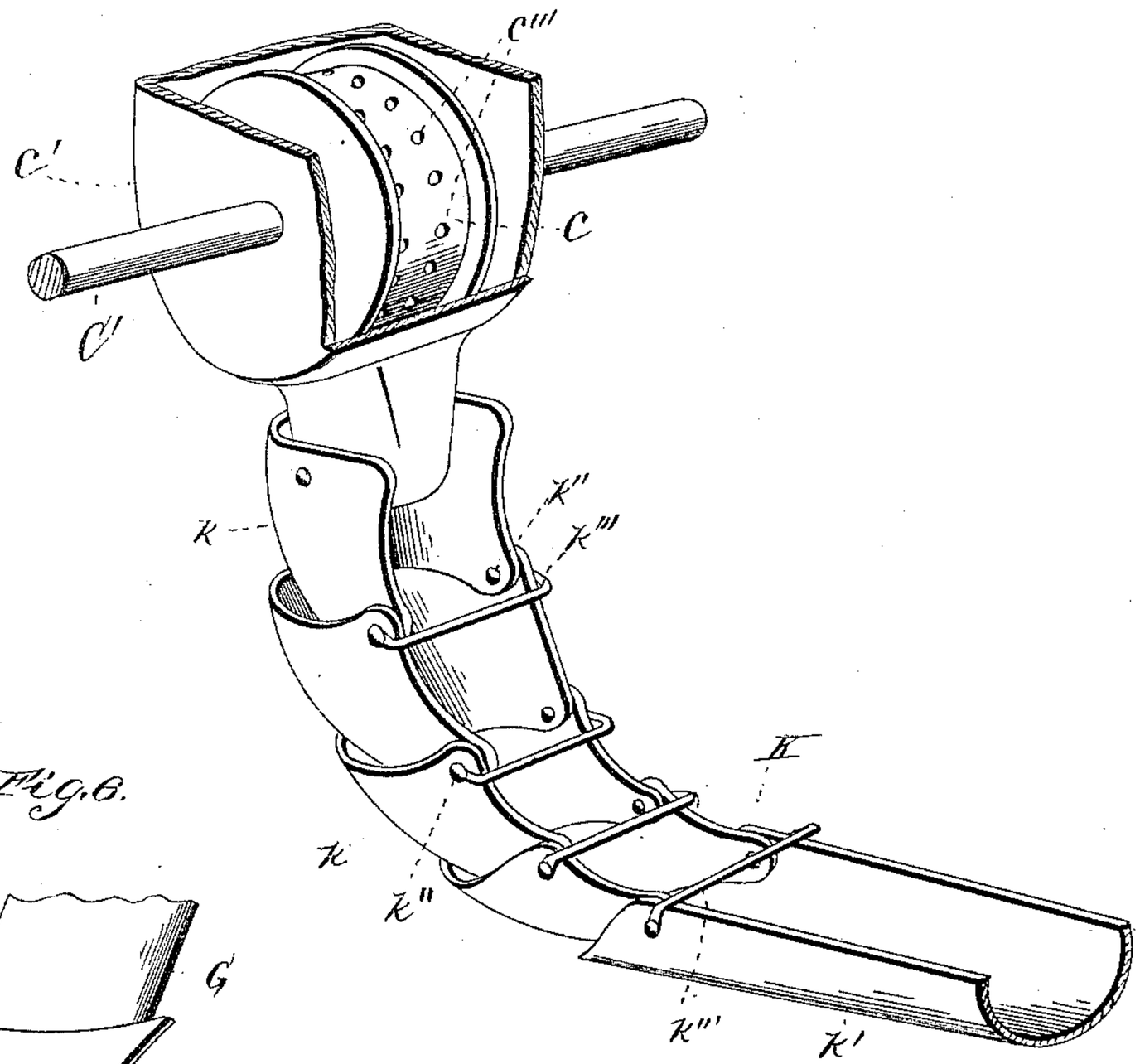


Fig. 6.

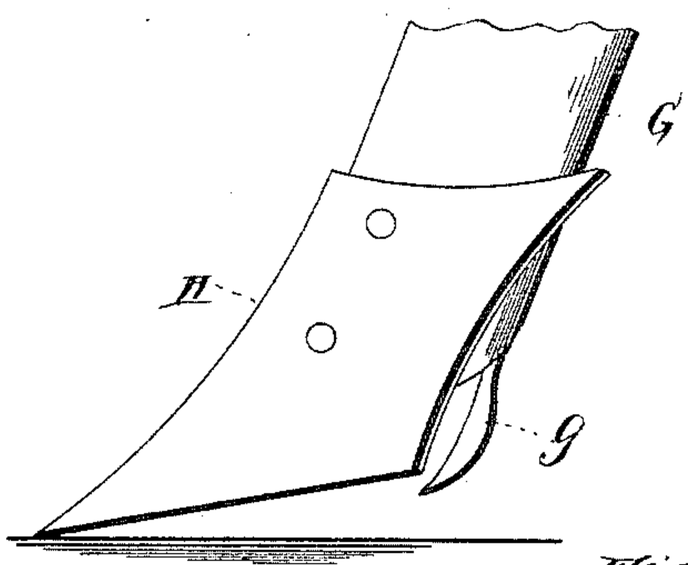


Fig. 7.

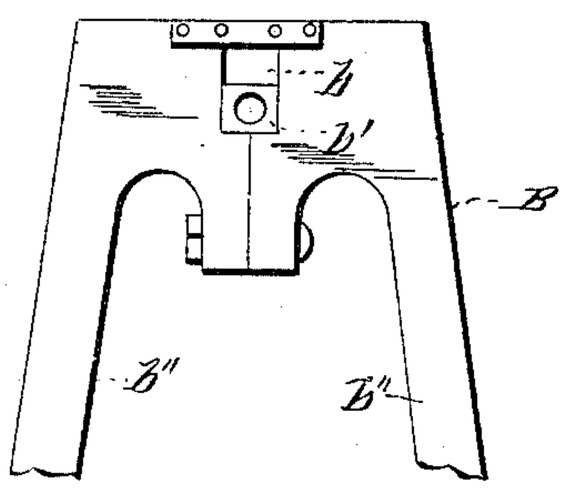
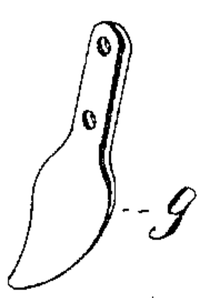


Fig. 8.



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UNITED STATES PATENT OFFICE.

OLA L. PETERSON, OF ASSARIA, KANSAS.

WHEAT-DRILL.

SPECIFICATION forming part of Letters Patent No. 445,076, dated January 20, 1891.

Application filed July 5, 1890. Serial No. 357,894. (No model.)

To all whom it may concern:

Be it known that I, OLA L. PETERSON, of Assaria, Saline county, Kansas, have invented certain new and useful Improvements in Wheat-Drills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in wheat-drills; and it consists in the novel construction and arrangements of the different parts hereinafter fully set forth and described.

In the drawings, which illustrate the manner of carrying out my invention, Figure 1 is a side elevation of my device. Fig. 2 is a top plan view showing the cover of the hopper A partly broken away. Fig. 3 is a central longitudinal section, showing the manner in which the spouts K are secured to hopper A. Fig. 4 is a rear view of my device. Fig. 5 is a detail in perspective of the jointed spout which conveys the grain from the hopper A to drill-plows H. Fig. 6 is a detail view of the plow H secured to the spout G. Fig. 7 is a broken-off detail view of the hopper-support B. Fig. 8 is a detail in perspective of the deflector.

Referring to the drawings by letter, A represents a hopper made a sufficient length to distribute wheat to all the spouts K, being mounted on supports B, which are properly secured on frame-work D.

C is an axle, on which are mounted wheels X for carrying said wheat-drill. E is a suitable tongue by which the wheat-drill is drawn. F are inclined beams or timbers to which the boots G are pivotally bolted, said boots G being provided with a suitable plow H, which cuts the furrow for the reception of the wheat through the dirt upon either side between the spouts in such a manner as to form a ridge, thus leaving wheat in the furrow between each row. These ridges serve to protect the wheat from the wind during the winter, and in the spring the ground may be leveled by using a harrow or any suitable implement for that purpose.

g is a deflector secured on the under side of boot G immediately in the rear of the plow H in such a position that the wheat passing through boot G falls on deflector *g*, and is thereby scattered over an area of about four inches.

C′ is a shaft running parallel with the main axle C and provided with flanged metallic wheels *c*. These wheels *c* are provided with perforations *c‴*, in which the wheat or grain to be sown collects when falling through the hopper A, and as said wheels revolve the grain is dropped into the conducting spout or trough K.

I is a metallic brace rigidly bolted to the inclined beams or timbers F and pivotally attached to the boot G near its top.

J is a segmental iron brace bolted to inclined beam F, and then secured to boot G by wooden pin *j′*. The object of this wooden pin *j′* is to provide a brace which will offer as little resistance as possible in case plow H should come in contact with any obstruction, in which case the wooden pin would break, allowing said plow H and drill-spout G to swing backward.

K are the spouts which conduct the grain from hopper A to boots G, these being made in sections hinged together in the manner illustrated in Figs. 3 and 5, thus allowing them to be moved with little difficulty when they are to be raised from the ground.

Sections *k* and *k′* are secured and held in position by bolts *k″* and metallic brace *k‴*.

L is a cross-beam which connects the frame-work D, the same being secured and held thereon by suitable angle-braces *l*.

l′ is a suitable handle, bolted or otherwise rigidly secured on beam L, by which all the drills may be raised out of the ground.

M are chains which pass through eyes *m* in beam L, said chain M being provided with a ring or loop which constitutes a handle for operating them singly; or when only one drill is to be raised from the ground this is done by a man who walks behind the drill.

N is a segmental rod or iron brace properly secured to shaft C′ and pivotally secured to frame D. This passes through a perforation in the lever O, which, operating backward or forward, throws gear-wheels P out of gear with the central gear-wheel S.

T is a gear-wheel keyed or otherwise rigidly secured on main axle C. This meshes with gear-wheel S, which in turn meshes with

a corresponding wheel P, thus giving the desired motion to the feed-wheels *c*, which are secured on shaft C′.

U are metallic strips bolted or otherwise secured in the bottom of said hopper A, and are slightly inclined, so as to conduct the grain to the flanged wheels *e*. These strips U are provided with a slide or valve, which allows the grain to pass through the hopper in the desired quantity. The slide or valve may be operated to allow a suitable quantity of grain to pass through said hoppers U onto wheels *c*.

b is a recess in the support B, in which operates the journal *b′*, which carries the revolving shaft. *b″* are the legs of said support B, which rests on the horizontal beams D.

f is a king-bolt, which passes laterally through cross-beam L″, to which is bolted the iron braces *f′* by suitable bolts, said braces *f′* being then properly secured to inclined beams F.

L′ is a cross-beam connecting parallel beams D D and forming a bearing for tongue E.

Having my device constructed in this manner it will be found a very easy matter to operate it.

The plows H, throwing the soil up in ridges between the rows of wheat, serve to protect it from the winter winds after it has come up.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a wheat-drill, the combination of a main frame, a hopper mounted thereon, devices for distributing the grain, and a trough connecting said hopper and distributing devices, said trough being composed of a series of concave sections, each of said sections being loosely pivoted at its corners only to the section next adjoining, whereby said trough is adapted to conform to any desired curvature, and transverse braces connected to the corners of said sections at the point of pivoting, as described.

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

OLA L. PETERSON.

Witnesses:

S. E. NELSON,

JOHN BRUNTZON.