

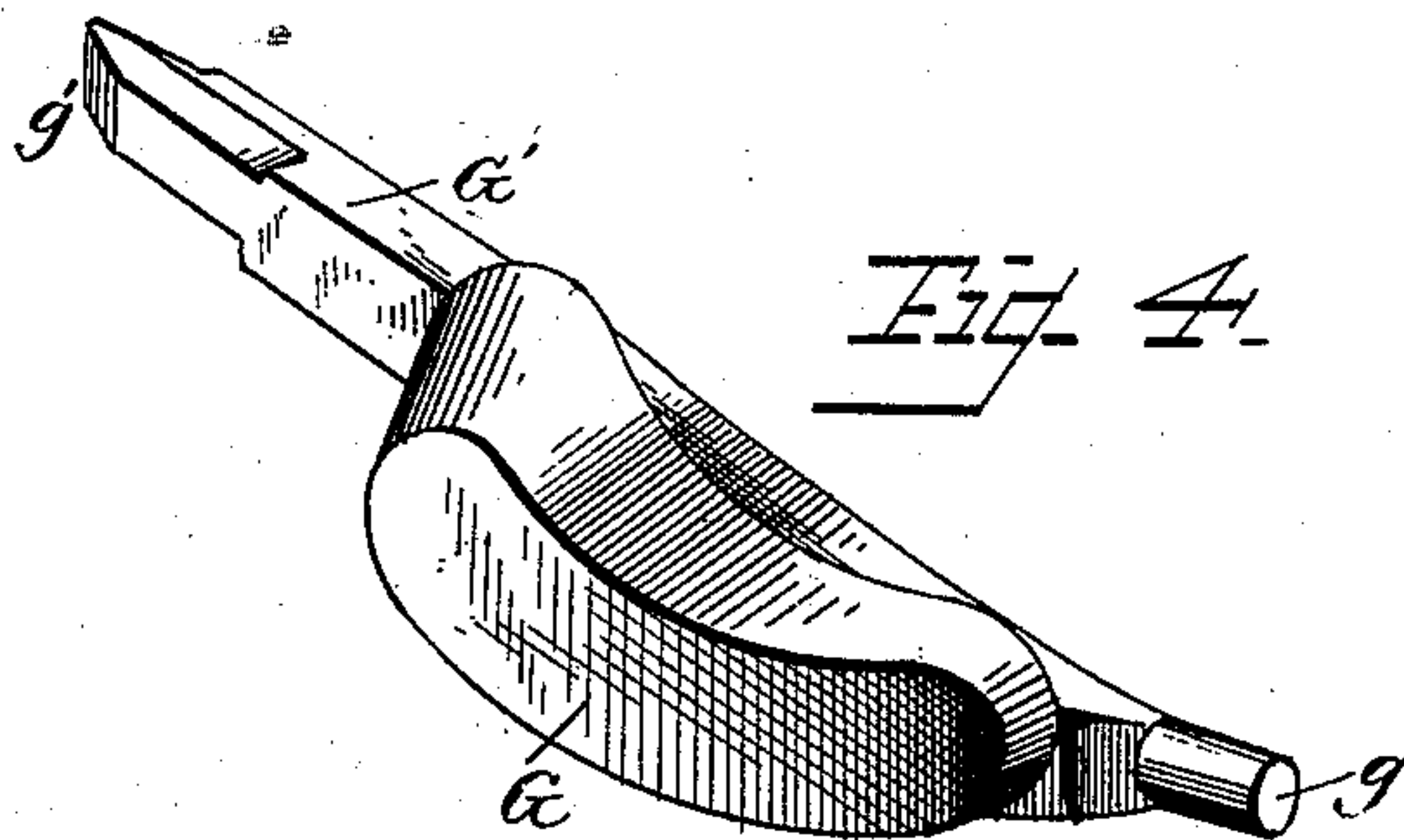
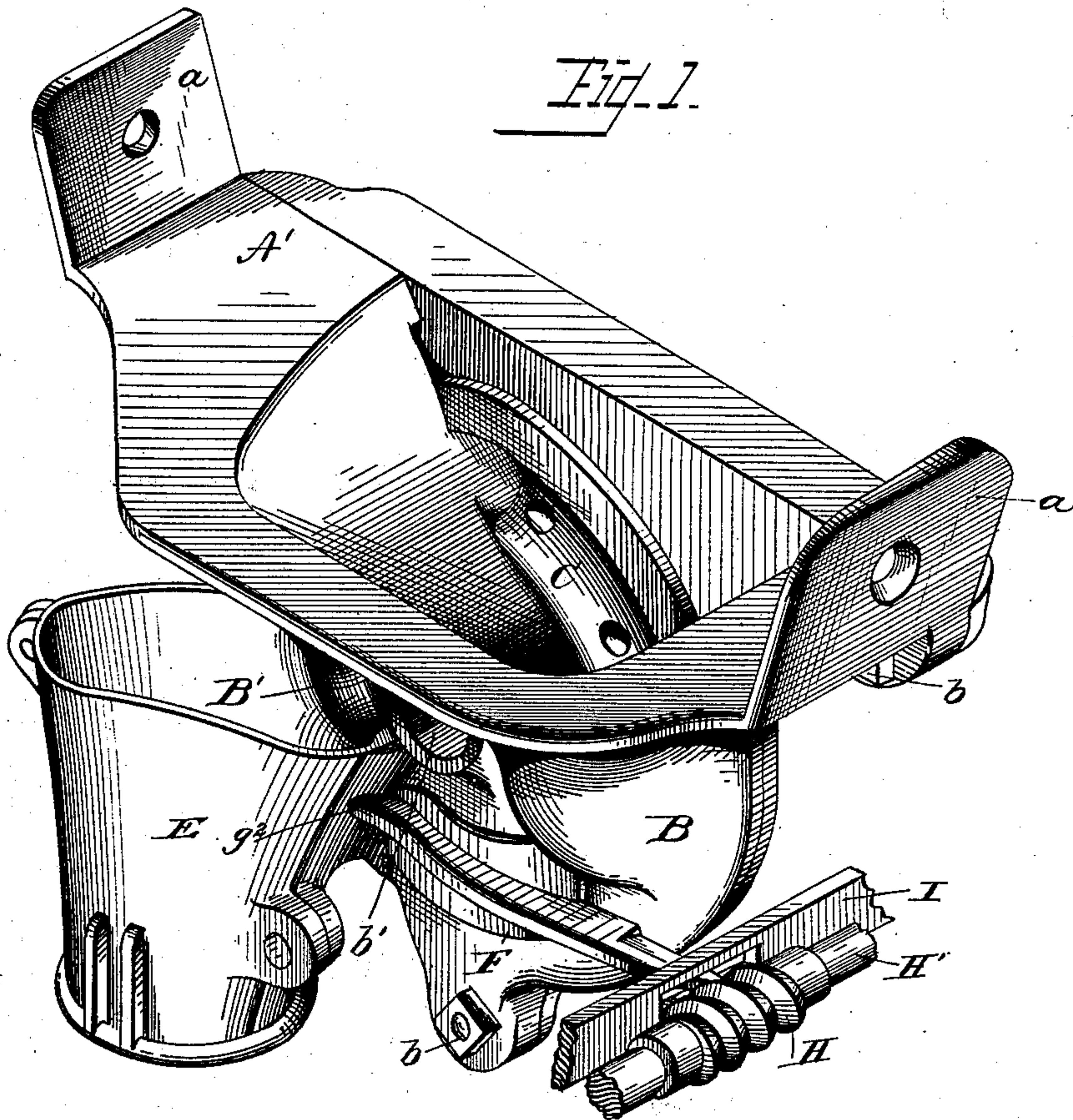
(No Model.)

2 Sheets—Sheet 1.

T. D. GERE.
GRAIN DRILL.

No. 291,183.

Patented Jan. 1, 1884.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

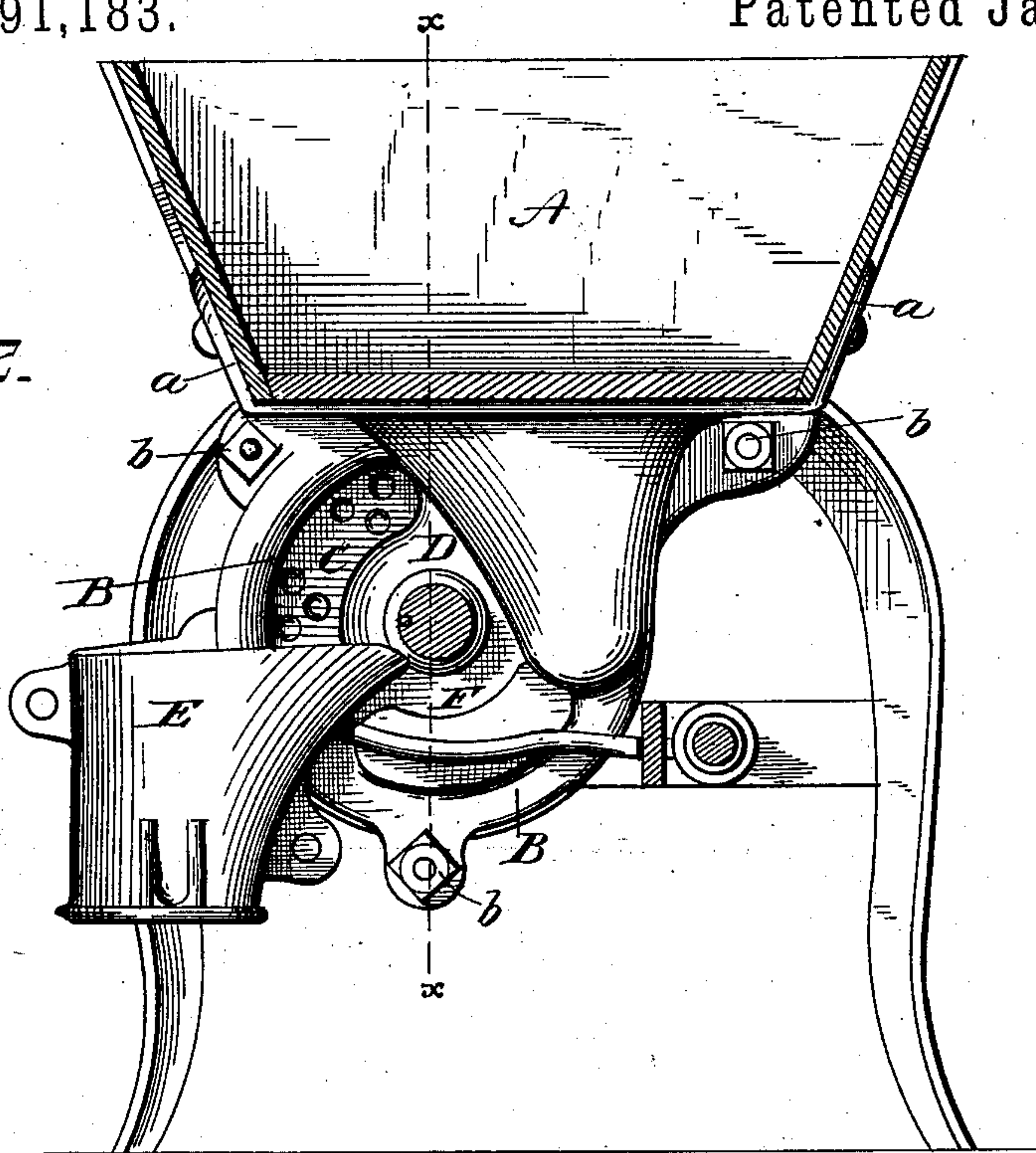
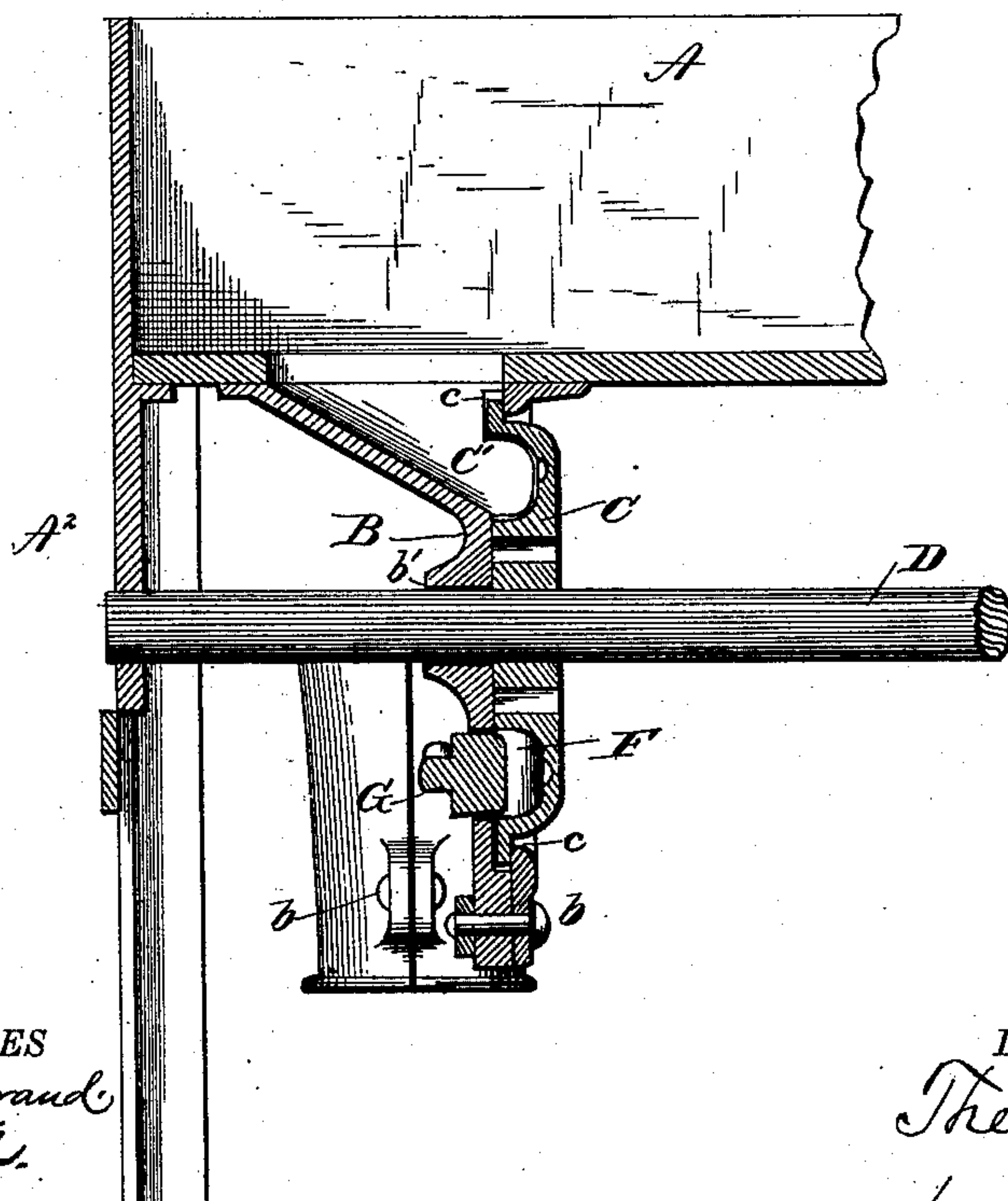


Fig. 3.



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UNITED STATES PATENT OFFICE.

THEODORE D. GERE, OF OWEGO, NEW YORK.

GRAIN-DRILL.

SPECIFICATION forming part of Letters Patent No. 291,182, dated January 1, 1884.

Application filed September 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, THEODORE D. GERE, of Owego, county of Tioga, State of New York, have invented a new and useful Improvement in Grain-Drills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to an improvement in grain-drills, and more especially to that class in which a vertically-rotating feed-wheel with the side casing is employed, whereby the size of the feed-channel and the flow of the grain or other material contained in the hopper may be regulated by simple and novel means; and it consists in providing the discharge-opening with a pivoted laterally-movable gate, in form intended to exactly correspond with and slide through an opening in the casing, said gate being hinged or pivoted, and provided with means whereby it is adapted to be rocked on its pivot, for a purpose hereinafter set forth.

In the accompanying drawings, Figure 1 represents a perspective view of so much of a grain-distributor as is necessary to show my improvements. Fig. 2 is a side elevation of the same; Fig. 3, a sectional view on the line *x x*, Fig. 2, and Fig. 4 a detail view, of the pivoted gate.

A represents a hopper of any ordinary or preferred form, to the base of which are secured the upper flanged ends, *A'*, of the distributor-wheel casing-plates. These ends *A'* are secured to the hopper-box by means of lugs or projections *a a*, cast upon them, and extending upward at an angle corresponding with the inclination of the side walls of the hopper, through which latter and the lugs referred to pass bolts for uniting the parts. The casing B is made in two parts, forming a chamber for the reception of the vertical distributor-wheel C, as shown, the parts of said casing being connected by means of bolts *b b* at suitable points. A perforation, *b'*, is provided in one side of the casing B for the passage of the main shaft D, upon which the distributor-wheel C is mounted. Other bearings for said shaft are provided in the form of pendent perforated projections *A²*, cast upon or secured to the sides of the hopper A. The shaft D is grooved its entire length, and the distributor-wheel C, where said shaft passes through it,

is provided with a small projection or key entering said groove, thus serving to key the wheel to the shaft and insure its rotation there-with, at the same time adapting the shaft to be readily moved when desired. The distributor-wheel C is of the form shown in section in Fig. 3—that is, it is provided with a U-shaped annular groove, *C'*, forming a channel for the passage of the grain, and it also has an annular flange, *c*, surrounding its periphery, which is confined within and has its bearing against and between the side walls of casing B. An opening, *B'*, is provided in the casing B, to one side of the center of wheel C, immediately at the mouth of a cup or tube, E, through which the grain, as it is delivered from the wheel, is conducted to the ground. Another opening or slot, in the form of an arc of a circle, (designated by *F*,) is provided in the casing, preferably below the center of the wheel C, and a gate (shown in detail in Fig. 4) is provided, adapted, when applied to said opening, to nearly fill the same. It consists of a piece, *G*, substantially of wedge shape, but, more accurately speaking, of such shape as to conform to the curvature of the groove *C'* when it is inserted in the slot *F*. This wedge-shaped gate *G* has in rear of it a bar, *G'*, to which it is secured, said bar being provided on one end with a shank, *g*, which enters a socket, *g²*, in the wall of the tube or cup E, and at its other end with a tooth or point, *g'*, adapted to be engaged by a worm or a screw, H, formed upon a shaft, *H'*, supported in suitable bearings provided for that purpose. The bar *G'* is supported at one end in the socket *g²* and at the other in a slotted cross-bar, I, just beyond which slot the tooth or point *g'* is engaged by the worm or screw H. The shaft *H'* is revolved by means of a crank, hand-wheel, or in any suitable manner, and when so revolved, the worm or screw H being formed upon it or secured to it, the outer end, *g'*, of the bar *G'*, by means of its engagement with screw H, will be moved either toward or away from the casing B, carrying with it the gate, which serves to either decrease or increase the size of the channel *C'* at that point. Thus, the size of the channel being adjustable, by means of the gate *G*, the flow of grain can be regulated at will.

For insuring the passage of the grain in the

channel C' of the wheel C, the walls of said channel are roughened or provided with "starts" or indentations, as shown.

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

1. In a grain-drill, the combination, with a vertical distributing-wheel having a side groove or channel formed therein, of a later-
ally-swinging gate formed upon an arm piv-
oted outside of the distributing-wheel casing
and adjustable transversely within and across
said channel, for regulating the capacity of the
channel, substantially as described.

2. In a grain-drill, the distributor-wheel
casing provided with an orifice in its side, in
combination with a laterally-swinging gate
formed upon an arm pivoted outside of the
distributing-wheel casing and adjustable
through said orifice transversely of the dis-

tributer-wheel, and means for adjusting said gate, substantially as described.

3. In a grain-drill, a pivoted laterally-ad-
justable gate, in combination with a worm or
screw for adjusting said gate, substantially as
described.

4. The combination, with a vertically-rotat-
ing distributor-wheel, of a casing inclosing
said wheel, provided with an opening in the
form of an arc of a circle, a hinged and later-
ally-adjustable gate corresponding in form to
the shape of the opening, and a worm or screw
for adjusting said gate, substantially as speci-
fied.

In testimony whereof I have hereunto set
my hand.

THEO. D. GERE.

Witnesses:

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JAMES E. BERGIN.