

(Model.)

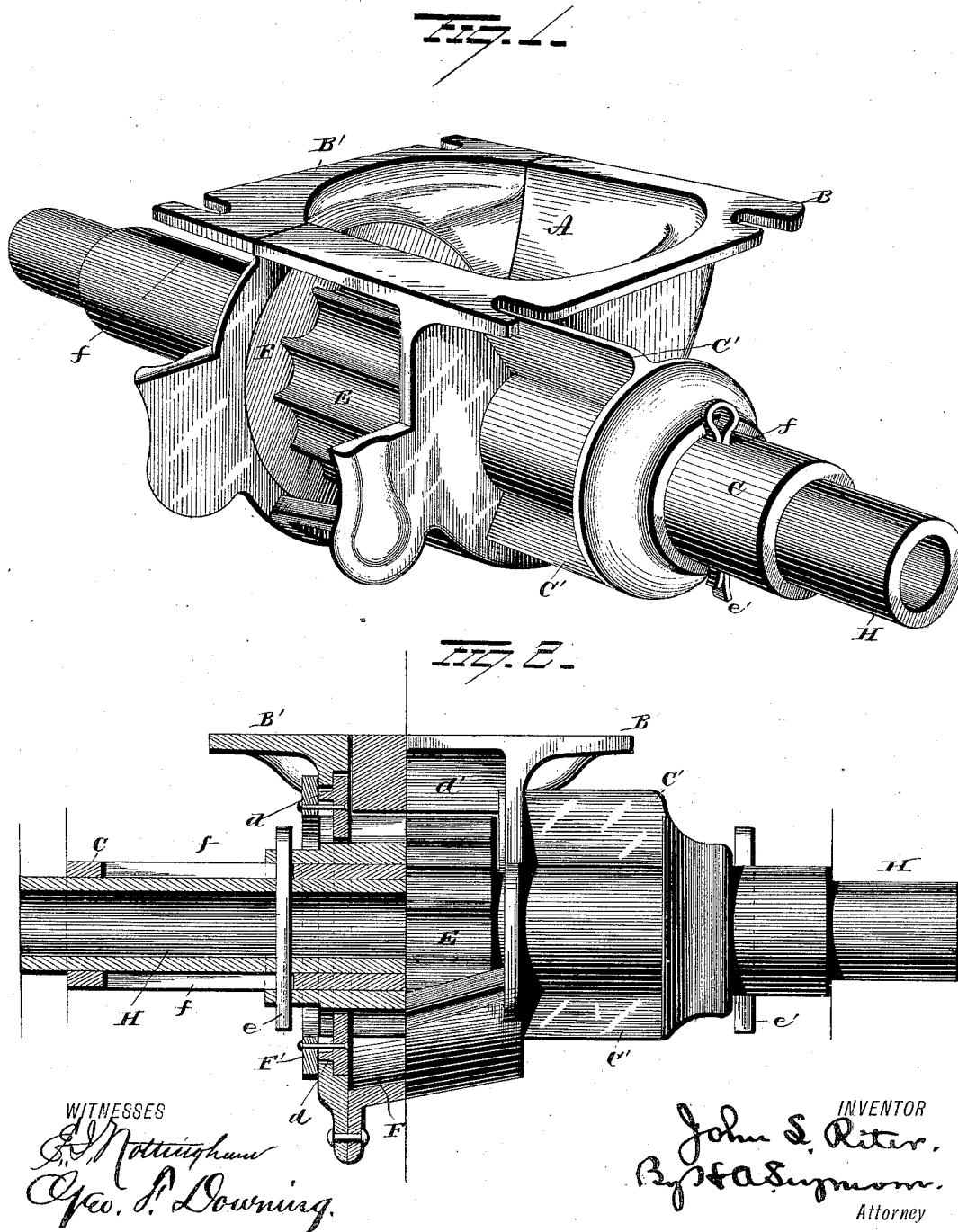
2 Sheets—Sheet 1.

J. L. RITER.

FORCE FEED SEEDING MACHINE.

No. 307,495.

Patented Nov. 4, 1884.



WITNESSES
Geo. P. Downing
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INVENTOR
John S. Riter
By H. A. Symmon
Attorney

(Model.)

2 Sheets—Sheet 2.

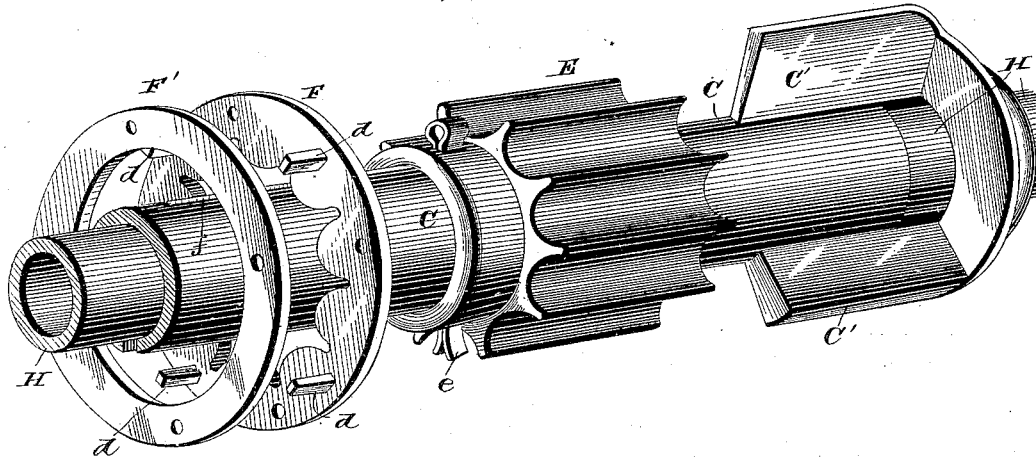
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Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN L. RITER, OF BROWNSVILLE, INDIANA.

FORCE-FEED SEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 307,495, dated November 4, 1884.

Application filed April 9, 1884. (Model.)

To all whom it may concern:

Be it known that I, JOHN L. RITER, of Browns-
ville, in the county of Union and State
of Indiana, have invented certain new and
5 useful Improvements in Force-Feed Seeding-
Machines; and I do hereby declare the follow-
ing 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
10 make and use the same.

My invention relates to an improvement in
force-feed seeding-machines, the object of the
same being to provide a positive-acting force-
feed that will combine simplicity and econo-
15 my in construction with durability and effi-
ciency in use; and with these ends in view my
invention consists in the parts and combina-
tions of parts, as will be more fully described,
and pointed out in the claims.

20 In the accompanying drawings, Figure 1 is a
view in perspective of my improved device.
Fig. 2 is a view of the same partly in eleva-
tion and partly in section; and Fig. 3 is a view
in perspective of the ring, rose-washer, feed-
25 wheel, and cut-off.

A represents the feed-cup, made in two sec-
tions, B B', each of which is provided with
the usual side openings. The section, B in
the present instance, constitutes the greater
30 portion of the cup, and the opening in the side
or face thereof is sufficiently large to enable
the tubular shaft C to revolve freely therein
without allowing any of the grain to escape.
This section is also provided with oblong slots,
35 which latter are in communication with the
side opening of the section B and guide the
cut-off or gates C' in their movement, and
with the rigid gate d', which latter operates
with one of the movable cut-offs and prevents
40 the grain from passing over the shaft. The
opposite section, B', forms one side of the cup,
and is provided with a large opening, through
which the fluted feed-wheel E is moved. The
opposite faces of this section B', immediately
45 around the said opening, are made perfectly
smooth to form bearings, respectively, for the
rose-washer F and the ring F', the former of
which bears against the inner face of the sec-
tion B', while the latter bears against the outer
50 face thereof. The rose-washer F is fluted to
correspond with the fluted feed-wheel, and
prevents the grain from passing out at this

point, and is provided with the laterally-extending lugs or flange d, which latter forms a bearing for the ring F'. The ring F' and rose-
washer F are secured together by rivets or
55 otherwise, and consequently revolve simulta-
neously with the fluted feed-wheel, and are
prevented from binding against the section B'
of the cup by the lugs or flanges d, which lat-
60 ter hold the washer and ring apart. If de-
sired, the lugs or flange can be formed on the
rings F', instead of on the washer F, and pro-
duce precisely the same result. The tubular
shaft C runs approximately the length of the
65 hopper, and is provided at one end with a pin-
ion, by means of which it is revolved, and at
suitable intervals apart with the fluted feed-
wheels E, (one for each cup,) and cut-off gate
or gates C'. The feed-wheels and gates are
70 loosely mounted on the tubular shaft, and are
held in position thereon by the pins or bolts e
e', which latter pass through longitudinal slots
f in the shaft C and cause the shaft and feed-
75 wheel to revolve simultaneously. The pins or
bolts e e' pass through the oblong slots f in the
revolving and non-sliding shaft C, and through
the restricted opening in the inner shaft, which
latter is preferably tubular. The pin e passes
80 through the end of the feed-wheel and prevents
the latter from rotating independently of the
shaft C, while the pin e' simply abuts against
the outer end of the cut-off, and prevents the
latter from sliding longitudinally independ-
85 ently of the feed-wheel. The inner shaft, H, re-
volves with the shaft C, and projects beyond the
said shaft at one end, and is provided at such
projecting end with any suitable means for mov-
ing it longitudinally. By moving the inner
shaft longitudinally the feed-wheel and gates
90 can be adjusted for graduating the feed with-
out disturbing the outer shaft.

When the device is in operation, the outer
shaft constantly revolves, and prevents the
grain from bridging within the cup, and also
95 assists the feed materially, while the oblong
slots f in the said shaft allows the inner shaft,
with its attached feed-wheels and gates, to
move longitudinally without interference.

It is evident that numerous slight changes
100 in the construction and relative arrangement
of the several parts might be resorted to with-
out departing from the spirit of my invention;
and hence I would have it understood that I

do not confine myself to the exact construction shown and described, but consider myself at liberty to make such changes as fairly fall within the spirit and scope of my invention.

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

1. The combination, with a seed-cup and a rose-washer in one side wall thereof, of a rotating and non-sliding shaft, a rotating and longitudinally adjustable feed-wheel situated on said shaft, a gate or gates acting in conjunction with the feed-wheel, and devices for adjusting the feed-wheel and gate or gates.

15 2. The combination, with a seed-cup and a rose-washer in one side wall thereof, of a rotating and non-sliding tubular shaft having elongated openings formed therein, a longitudinally sliding and rotating shaft situated within the hollow shaft, an adjustable feed-wheel loosely mounted on the tubular shaft, and rigidly secured to the inner shaft, a gate or gates

loosely mounted on the tubular shaft and operated by the inner shaft, and devices for sliding the inner shaft, substantially as set forth. 25

3. The combination, with a seed-cup, and a rose-washer bearing against or in one side wall thereof, of a rotating and non-sliding cylindrical shaft, and a feed-wheel and cut-off gate or gates adjustably secured on said shaft. 30

4. The combination, with the seed-cup and a rose-washer in one side wall thereof, of the tubular shaft, the inner shaft, the gate or gates, and the feed-wheel, the latter being connected to the inner shaft by a pin passing through an oblong slot in the outer shaft, substantially as set forth. 35

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN L. RITER.

Witnesses:

GEO. F. DOWNING,
GEORGE COOK.