

(Model.)

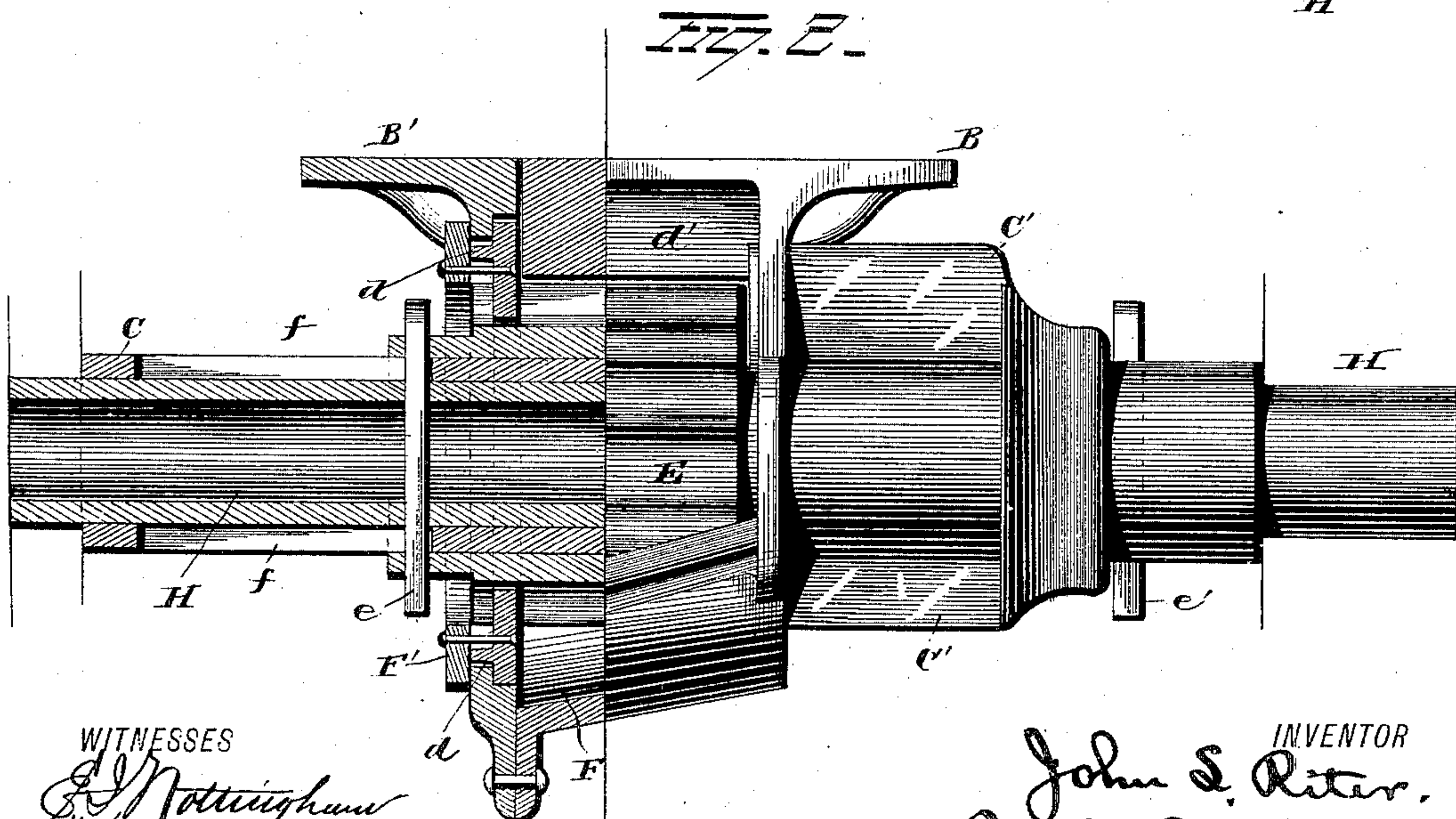
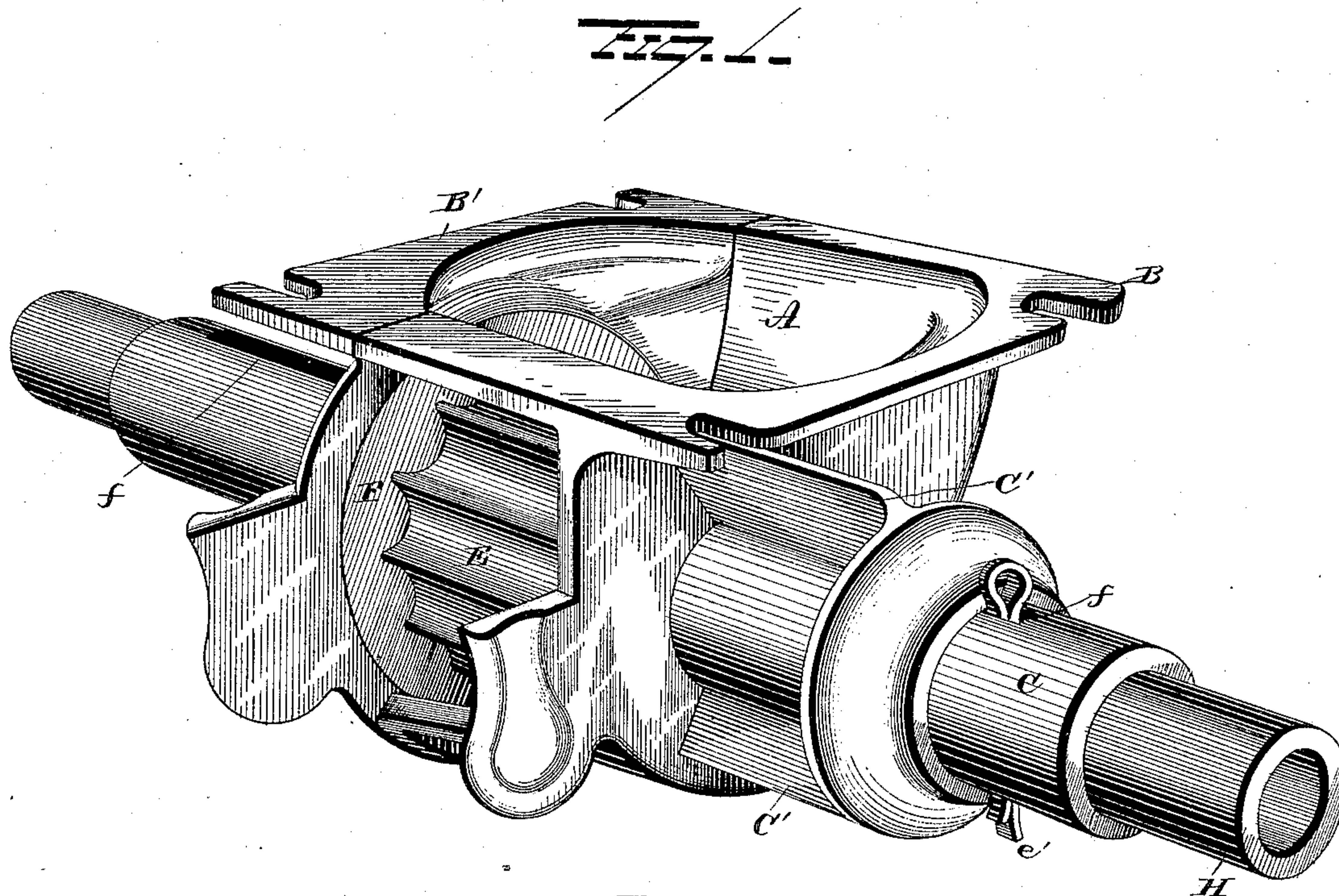
2 Sheets—Sheet 1.

J. L. RITER.

## FORCE FEED SEEDING MACHINE.

No. 307,495.

Patented Nov. 4, 1884.



WITNESSES

E. Nottingham  
Geo. S. Downing.

INVENTOR

INVENTOR  
John S. Riter.  
By W. A. Symmon  
Attorney

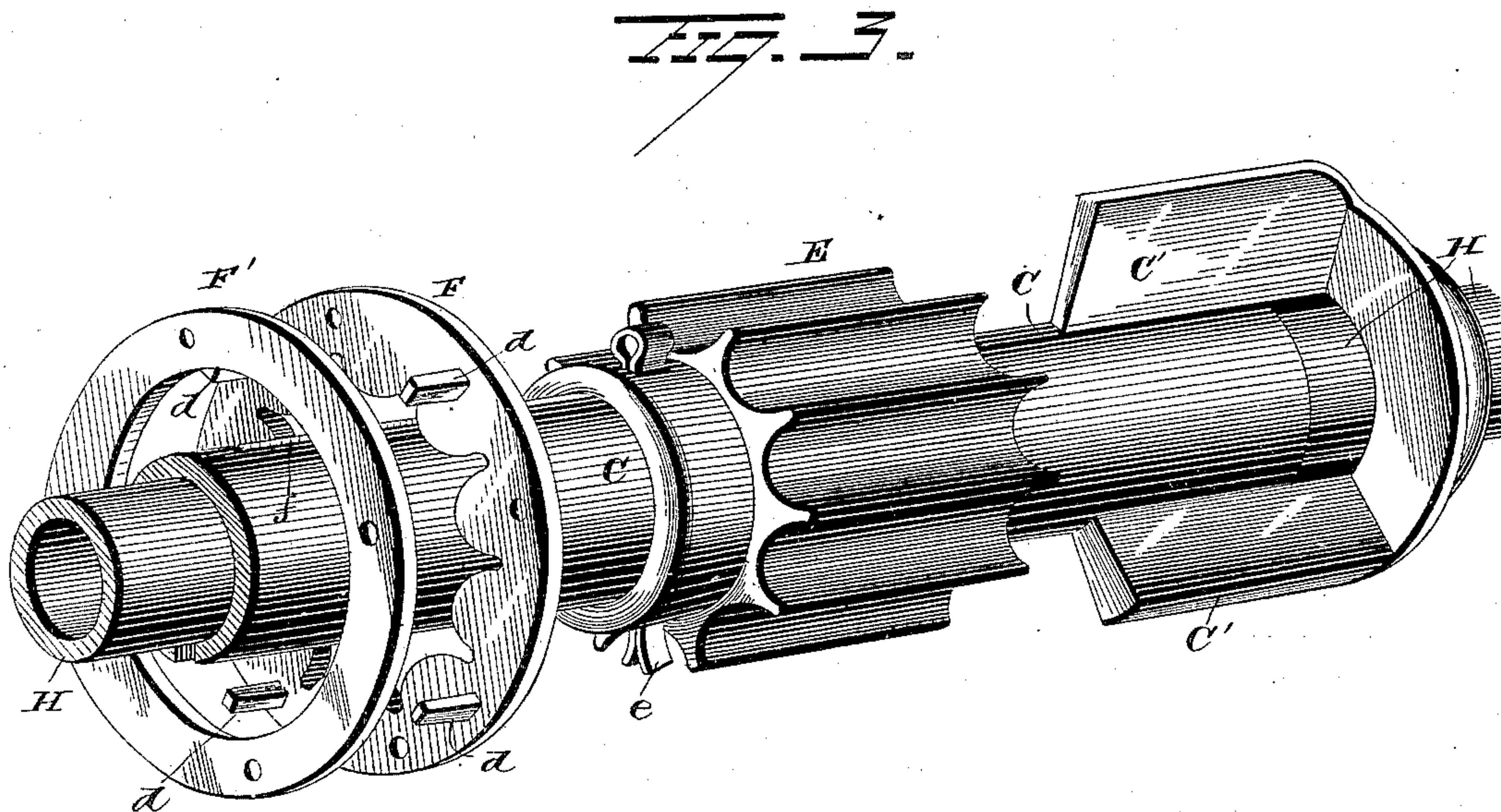
(Model.)

2 Sheets—Sheet 2.

J. L. RITER.  
FORCE FEED SEEDING MACHINE.

No. 307,495.

Patented Nov. 4, 1884.



WITNESSES:

*E. J. Nottingham*  
*Geo. P. Downing*

INVENTOR

BY *John S. Riter.*  
*W. A. Symmon.*  
ATTORNEY



# 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  
Brownsville, 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-ex-  
tending lugs or flange d, which latter forms a  
bearing for the ring F'. The ring F' and rose- 55  
washer F are secured together by rivets or  
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-  
wheel to revolve simultaneously. The pins or 75  
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  
through the end of the feed-wheel and prevents 80  
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-  
ently of the feed-wheel. The inner shaft, H, 85  
revolves 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—

10 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  
20 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  
35 set forth.

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

JOHN L. RITER.

Witnesses:

GEO. F. DOWNING,  
GEORGE COOK.