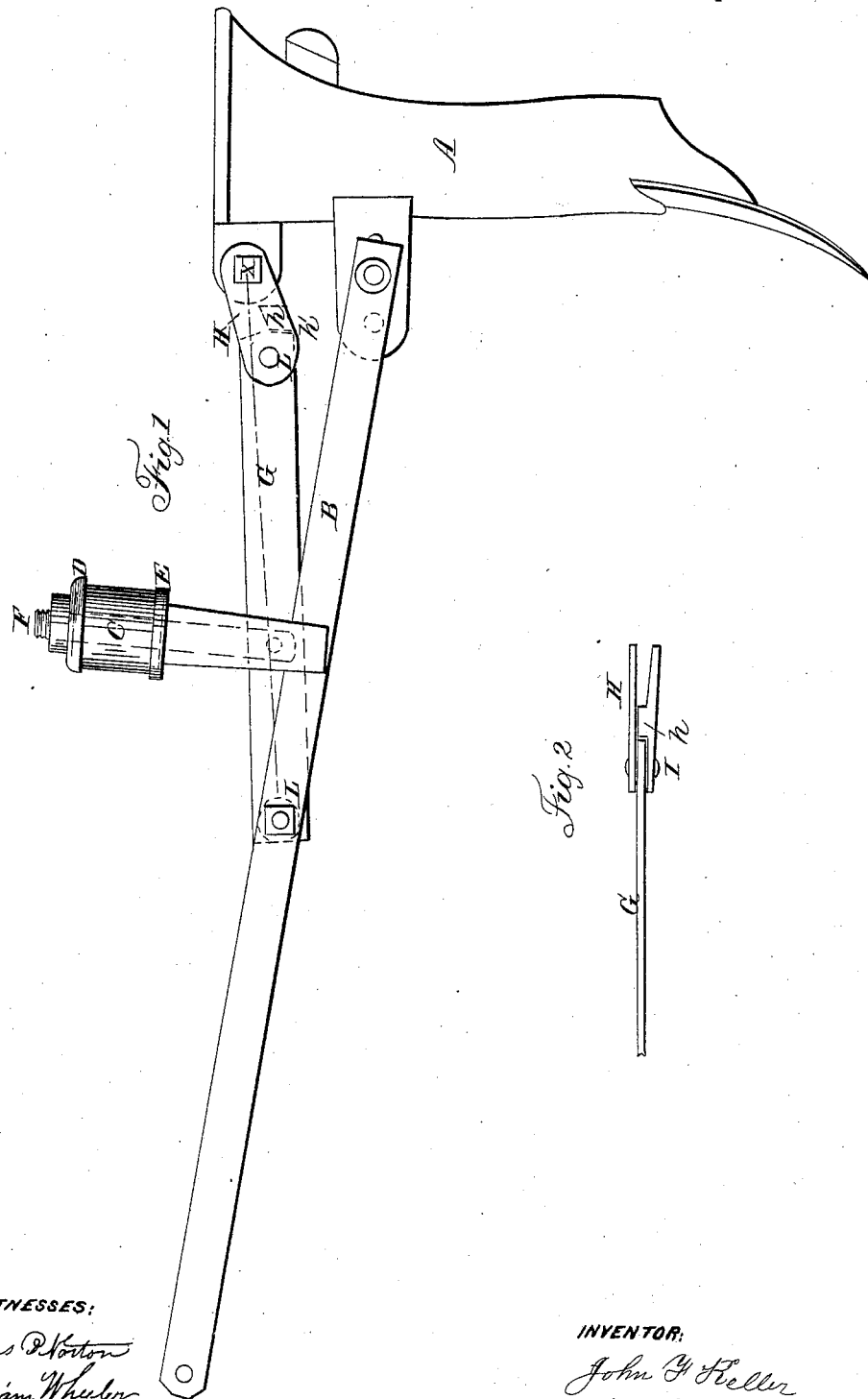


J. F. KELLER.  
Seed-Drill Teeth.

No. 50,140.

Patented Sept. 26, 1865.



WITNESSES:

Marcus D. Norton  
William Wheeler

INVENTOR:

John F. Keller  
per Daniel B. Reed, Atty.

# UNITED STATES PATENT OFFICE.

JOHN F. KELLER, OF GREENCASTLE, PENNSYLVANIA.

## IMPROVEMENT IN WHEAT-DRILLS.

Specification forming part of Letters Patent No. **50,140**, dated September 26, 1865.

*To all whom it may concern:*

Be it known that I, JOHN F. KELLER, of Greencastle, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in Wheat-Drills; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of a peculiar check-link or mode of connecting the boot of a wheat-drill with the spring and draft-rod, in order to give greater flexibility to the boot and shovel, or to facilitate the extension of the shovel, when it strikes a stone or other obstacle.

In the accompanying drawings, Figure 1 is a side view of a boot for a wheat-drill with my improvements attached. Fig. 2 is a bottom view of the check-link detached from the boot and spring.

In the construction of my improvement the boot A and draft-rod B may be of the ordinary form. The rubber spring C and the caps D and E may be arranged on the rod F, as described in my machines already patented, and shown in Fig. 1.

In order to facilitate the extension of the shovel upon striking a stone or other obstacle, I have arranged the upper rod, G, with a link, H, having a check-piece or stop, *h*, Fig. 2. This stop or check-piece strikes the end of the bar G, and holds the link in an oblique position to the rod G, as seen in Fig. 1. Thus the pivot is prevented from rising to the line (shown in

red) connecting the pivot K with the pivot L. This stop *h* may consist of a single projection, *h'*, as shown in Fig. 2, or of two projections, one on each half of the link, or of any other suitable means, so long as the bar G is prevented from rising until the pivot I reaches the red line K L. In this way a dead-lock or a lock upon the dead-centers of the link is prevented, and the extension of the boot and shovel is facilitated. For the same object a nut has been placed upon the rod F, below the cap E, but such nut is liable to work loose; but the check-link has no such objection, and it is much cheaper of construction and very durable and efficient.

I do not broadly claim a flexible boot or the use of the lever G with the spring and boot, but confine my within claims to the check-link and the combination therewith above set forth.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The above-described check-link, for the purpose of limiting the motion of the lever or bar G, substantially as set forth.

2. The arrangement and combination of the link H, the bar or lever G, and the boot A with the spring for giving flexibility to the boot and shovel, substantially in the manner and for the purposes set forth.

JOHN F. KELLER.

Witnesses:

EDM. F. BROWN,  
DANIEL BREED.