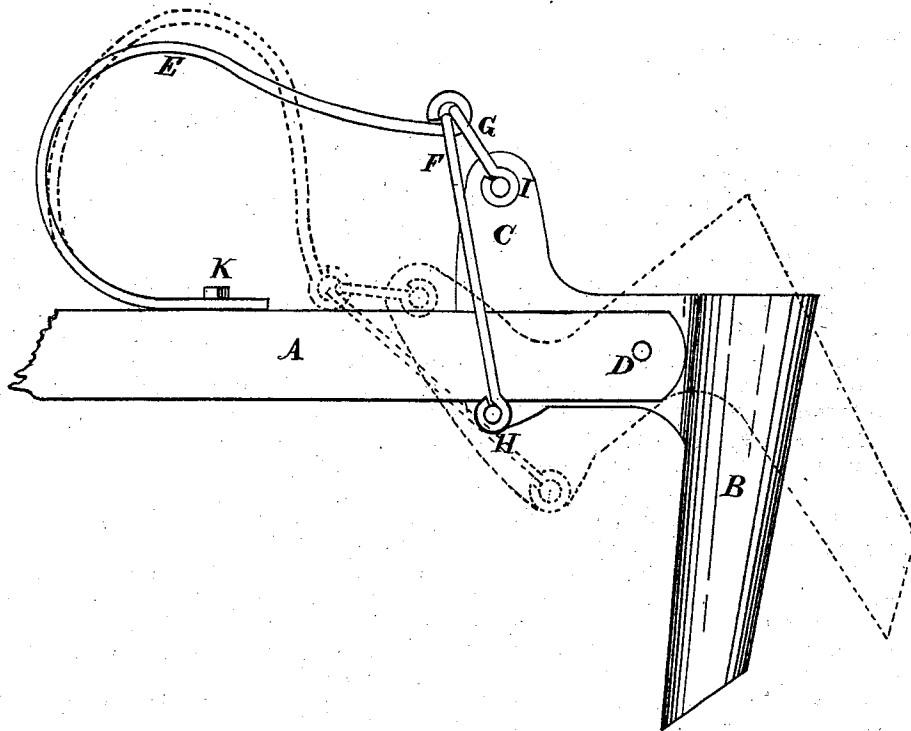


S. BLACK.

Drill Teeth.

No. 136,408.

Patented March 4, 1873.



Witnesses
Nelson A. Hunt
John Helmig

Inventor
Samuel Black
By F. B. Hunt
Atty

UNITED STATES PATENT OFFICE.

SAMUEL BLACK, OF WEST ALEXANDRIA, OHIO.

IMPROVEMENT IN DRILL-TEETH.

Specification forming part of Letters Patent No. 136,408, dated March 4, 1873.

To all whom it may concern:

Be it known that I, SAMUEL BLACK, of West Alexandria, county of Preble and State of Ohio, have invented certain Improvements in Attachments for Seed-Drill Teeth, of which the following is a specification:

My invention relates to an improvement in attachments to seed-drill teeth, wherein I use a spring and stirrups attached to the guide-plate, which is fastened to the front side of the drill-tooth, whereby the tooth may be allowed to fall backward when it comes in contact with a stone or other obstacle, and after passing the same to readjust itself through the means of the spring.

The drawing is a side elevation, showing the whole attached to the beam or draw-bar A. B is the tooth; and C the guide-plate, attached thereto. E is the spring, held down upon the beam A by the bolt K. H and I are lugs passing through the ends of the plate C. The stirrups F and G are attached to the spring E at its rear end. The stirrup F is looped over the lug or pivot H at its lower end. The stirrup G is looped over the stud or pivot I at its lower end. The stud I passes through the upper end of the plate C. The

stud H passes through the lower end of said plate C. The rear end of the beam A is slotted to receive the guide-plate C, and is pivoted to the same by means of the bolt D passing through the rear end of the beam and through said plate C.

By means of my arrangement of double-stirrups I get a greater force of spring, as the spring E is thrown much further backward by means of the stirrup G, as indicated by the dotted lines; and, consequently, more force is exerted to replace the tooth in position.

I do not claim an attachment of spring and stirrup, broadly, for such have been known and used; but

What I claim, and desire to secure by Letters Patent, is—

The combination and arrangement of the slotted beam A, tooth B, plate C, spring E, studs H and I, and stirrups F and G, all arranged substantially as described, for the purpose specified.

SAMUEL BLACK.

Witnesses:

NELSON A. HUNT,
E. A. STRATTAN.