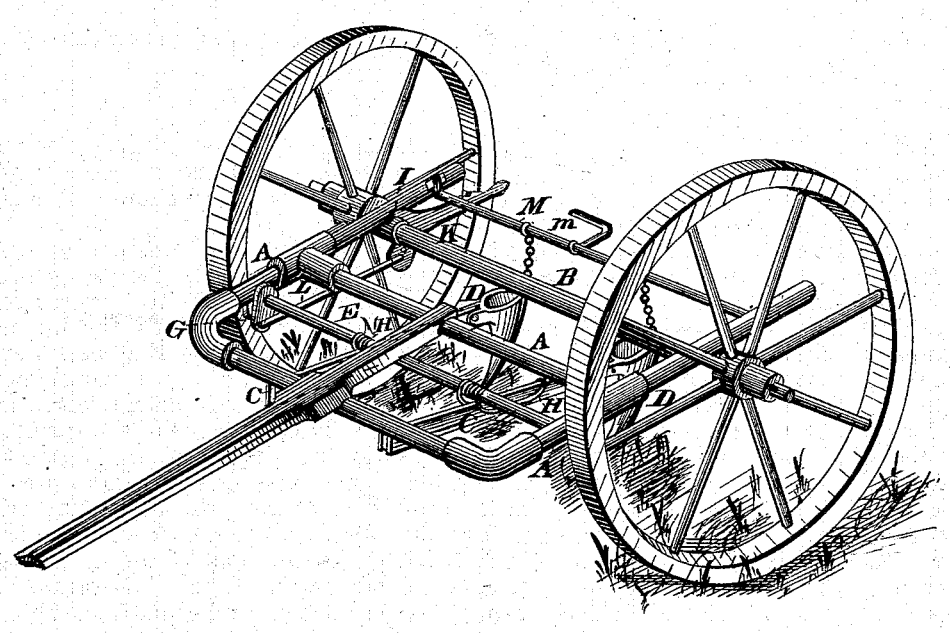
J. C. BAKER.

GRAIN-DRILL.

No. 186,407. Patented Jan. 23, 1877.



WITNESSES

Ed. S. Nottingham.

A. M. Bright.

INVENTOR

John C. Baker.

By Leggett and Leggett.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN C. BAKER, OF MECHANICSBURG, OHIO.

IMPROVEMENT IN GRAIN-DRILLS.

Specification forming part of Letters Patent No. **186,407**, dated January 23, 1877; application filed November 8, 1876.

To all whom it may concern:

Be it known that I, JOHN C. BAKER, of Mechanicsburg, in the county of Champaign and State of Ohio, have invented certain new and useful Improvements in Grain-Drills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which form part of this specification.

My invention relates to grain-drills; and consists in the peculiar combination of parts, whereby pressure is applied to the drag-bars, as hereinafter more fully set forth and claimed.

In the drawing, representing a perspective view of a grain-drill embodying my invention, A represents the frame, constructed of common gas-pipes or hollow tubes of iron, which renders the same very light, durable, and strong, and also simplifies its construction, the tubes or pipes being joined at the angles in the same manner as is commonly employed in fitting gas-pipes.

As strength, lightness, and durability are desirable qualities in a grain-drill, it is obvious that the above-described construction possesses great advantages over all known methods of construction.

B represents the axle, to which the frame is secured. C are the drag-bars, pivoted to the front of the frame, and attached to the hoes D of the drill. E is the spring-carrying bar, pivoted to the sides of the frame. It has rigidly attached to it the arm G, and also the springs H. On the axle is placed the sleeve I, to which is rigidly secured the bell-crank lever K, to the lower arm of which is fastened the connecting rod or pitman L, the other end of which attaches to the arm G of the spring-bar E. M is the lifting-bar, bent as shown in the drawing, the ends of which are pivoted to the sides of the frame. It is provided with the handle *m*, by which it is elevated or lowered. To said lifting-bar are attached, by chains or other suitable means, the hoes D, which are placed in and out of operative position by raising or lowering said bar.

The manner of applying pressure to the drag-bars is as follows: By depressing the lifting-bar M, so that the hoes are lowered to operative position, it operates on the upper arm of the bell-crank lever, so that its lower arm is forced forward, which, by means of the connecting rod or pitman, communicates a similar movement to the arm G of the spring-bar E, thus turning the latter, and causing the springs rigidly attached thereto to press on the drag-bars, whereby the hoes attached to the latter are caused to penetrate hard, or otherwise troublesome, soils, as well as those of opposite character. I find this arrangement to be very useful, in fact indispensable, for the purpose devised.

When the lifting-bar M is raised, elevating the hoes, the drag-bars will press against the springs, which will readily yield to the pressure by reason of the removal of the lifting-bar from the arm of the bell-crank lever.

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

1. The combination, with the main frame of a grain-drill, pivoted so as to be adjustable in a vertical plane, of spring-pressed hoes, the latter operated by the rear bell-crank lever, intermediate connecting-link, and rear presser-bar, substantially as described.

2. In a grain-drill, the combination of drag-bars C and spring-bar E, provided with springs H and arm G, with the pitman L, bell-crank lever K, and lifting-bar M, substantially as and for the purpose described.

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

JOHN C. BAKER.

Witnesses:

E. D. MORGAN,

JACOB T. EARNEST.