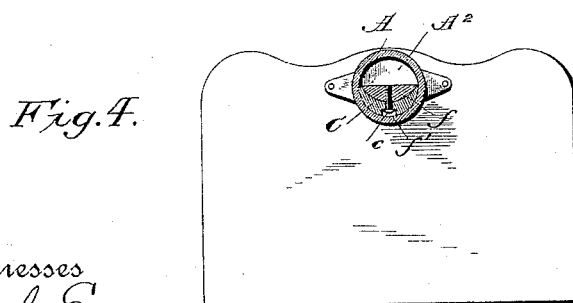
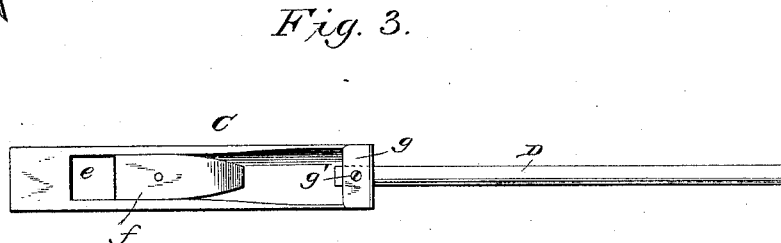
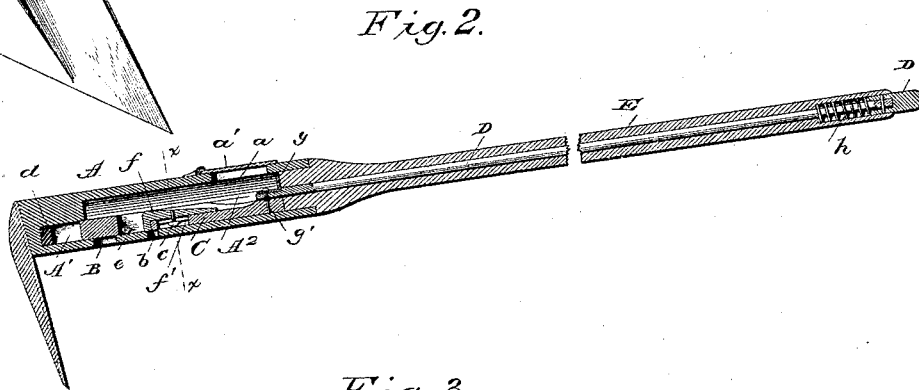
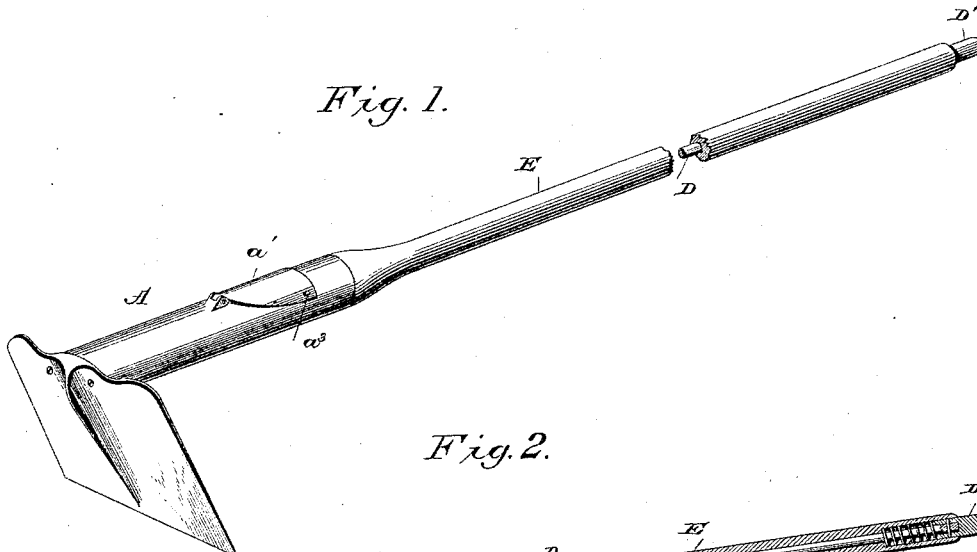


(No Model.)

R. C. & W. C. CLAIBORNE.
COMBINED HOE AND SEED DROPPER.

No. 419,928.

Patented Jan. 21, 1890.



Robert C. Claiborne.
— and —
William C. Claiborne.

Witnesses

L. S. Elliott.
W. M. Johnson

By their Attorney

Inventor

UNITED STATES PATENT OFFICE.

ROBERT C. CLAIBORNE AND WILLIAM C. CLAIBORNE, OF WELL SPRING,
TENNESSEE.

COMBINED HOE AND SEED-DROPPER.

SPECIFICATION forming part of Letters Patent No. 419,928, dated January 21, 1890.

Application filed November 7, 1889. Serial No. 329,467. (No model.)

To all whom it may concern:

Be it known that we, ROBERT C. CLAIBORNE and WILLIAM C. CLAIBORNE, citizens of the United States of America, residing at Well Spring, in the county of Campbell and State of Tennessee, have invented certain new and useful Improvements in Combined Hoes and Seed-Droppers; and we 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to certain new and useful improvements in combined hoes and seed-droppers, the object being to provide a seed-dropping attachment for an ordinary hoe.

The invention consists in a hoe-handle made up of two sections, the lower section being hollow and provided with an opening through which seed may be placed therein above a reciprocating seed-slide, which carries an adjustable slide for regulating the size of the opening in the seed-slide, the said section also having openings through which the seed passes, as well as an opening for manipulating a set-screw to regulate the size of the opening in the seed-slide, the seed-slide having a rod attached thereto, which passes through the hollow upper section of the handle, the end thereof having a socket containing a spring for actuating the seed-slide in one direction, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a hoe embodying our invention. Fig. 2 is a longitudinal section. Fig. 3 is a detail view of the upper side of the seed-slide, and Fig. 4 is a sectional view taken through the line *xx* of Fig. 2.

A refers to the lower section of the hoe-handle, to which the hoe-blade may be attached in the usual manner. This section is either made of hard wood or cast metal, the latter being preferred, and when made of metal it can be quite thin, so that the lower end of the handle will not be too heavy.

This lower section A is provided on its upper side with an opening *a*, above which is hinged a concaved cover *a'*, having perforations which are adapted to engage with pins or projections *a''*, formed on or attached to the section A, so that the cover will be held closed when in engagement therewith. The under side of the section A adjacent to the blade of the hoe has a seed-exit opening B and a perforation *b*, through which a screw-driver can be passed for turning the screw *c*, which is used for securing and adjusting the seed cut-off of the seed-slide.

The section A near its lower end has a semicircular longitudinal recess *A'*, above which is a circular recess *A''*, and at the lower end of the recess *A'* is located a rubber buffer *d*, against which the end of the seed-slide may abut. The circular recess *A''* receives the upper portion of the seed-slide, and is of a capacity sufficient for the desired amount of seed.

The reciprocating seed-slide C has a solid semicircular lower end, while the upper portion beyond the opening *e* therein is concaved, and within this concaved portion is secured, by means of a set-screw *c*, an adjustable cut-off *f*, the screw passing through a shouldered slot *f'*, and the head thereof bearing upon the said shoulders. The cut-off may be adjustable, so as to increase or diminish the size of the opening *e* by inserting a suitable tool through the opening *b* and turning the screw, which adjustment can be readily made without removing the seed-slide from the lower section of the handle. To the upper end of the seed-slide is secured an angular plate *g*, and the same bolt *g'* which holds the plate in place also holds the end of the rod D.

E refers to the upper section of the hoe-handle, which is bored throughout its length, said bore being enlarged at its upper end for the reception of a spiral spring *h*, which bears upon the shoulder of said bore, and also upon the end of a block or cap D', attached to the end of the rod D, which cap projects beyond the end of the upper section of the handle.

In operation the seed-receptacle is filled and the spring bearing upon the cap will

hold the seed-slide, so that its solid lower portion will close the opening B. When it is desired to drop seed, it is only necessary to press upon the cap, which will cause the seed-
 5 slide to be reciprocated and permit the seed contained in the opening in the seed-slide to drop in front of the hoe.

The implement is especially useful in cultivating corn, as while the corn is being hoed
 10 it can also be replanted.

We are aware that prior to our invention hoes with hollow handles to contain seed and adjustable seed-slides have been provided, and we do not claim such construction,
 15 broadly, as our invention; but

What we claim as new, and desire to secure by Letters Patent, is—

1. In a combined hoe and seed-dropper, a handle made in two sections, the lower section having internal recesses A' A² and openings a B b, a seed-slide contained within the lower section and provided with an adjustable cut-off, and an angular plate attached to the upper end thereof, a rod contained
 20 within the upper section of the handle and provided with a cap which extends beyond said section, said rod being embraced by a spring located within the recess within which the cap moves, substantially as shown, and
 25 for the purpose set forth.

2. In a combined hoe and seed-dropper, the combination of a handle made in two sections, a seed-slide, and parts connected therewith, located entirely within the lower section of the handle, and a spring-actuated rod extending through the upper section and attached to the seed-slide, substantially as
 35 shown and set forth.

3. In a combined hoe and seed-dropper, a handle made in two sections, the lower section having a semicircular recess A' and a circular recess A², an opening a, provided with a cover and seed-exit opening B, a seed-slide having a semicircular lower end and a concaved upper portion, an angular plate
 40 attached to the upper portion of the seed-slide, so as to close the upper end of the circular recess, and a spring-actuated rod extending through the upper section of the handle for operating the seed-slide in one
 50 direction, substantially as shown.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT C. CLAIBORNE.
 WILLIAM C. CLAIBORNE.

Witnesses:

JNO. W. GREEN,
 T. M. REDD.