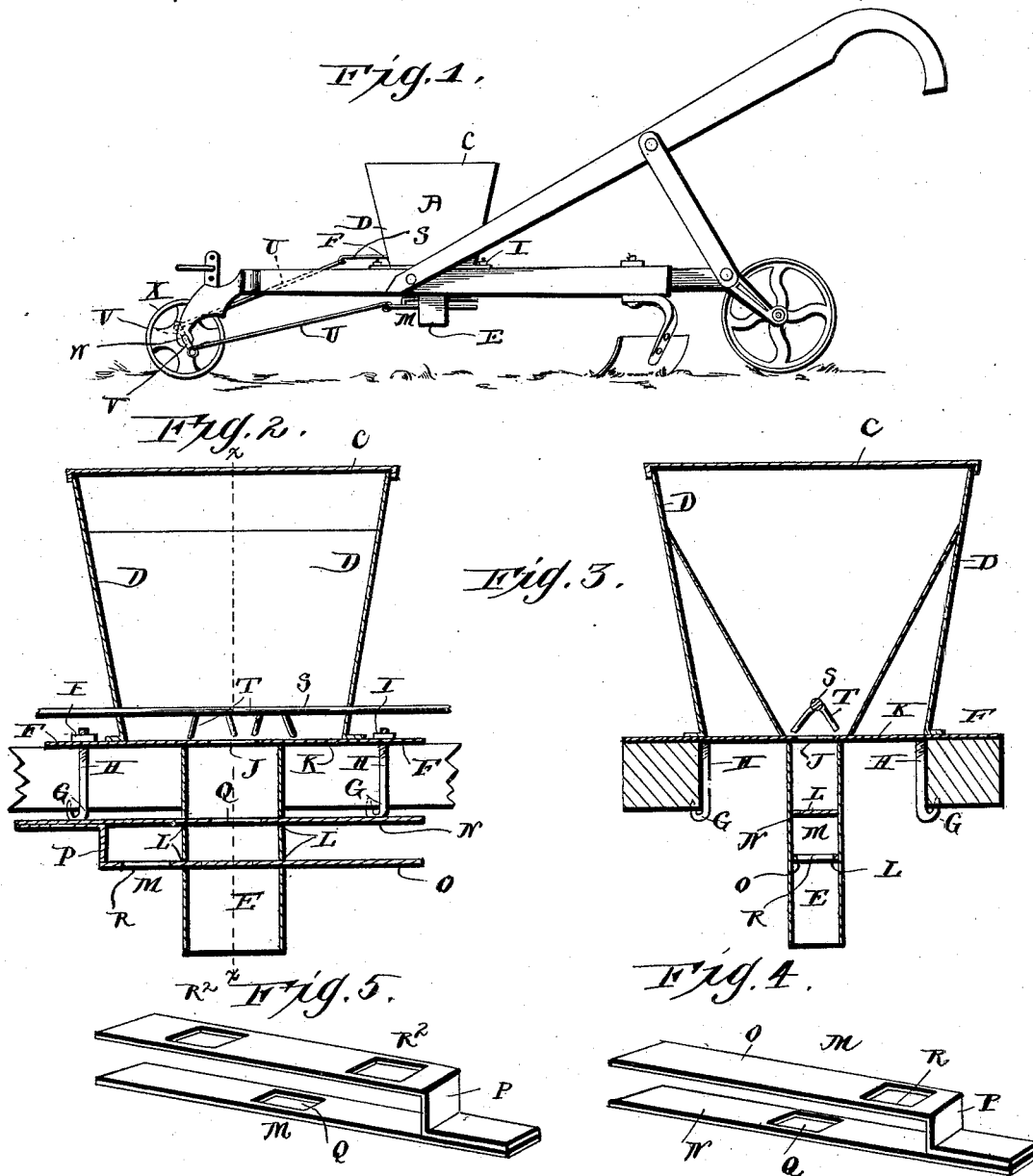


(No Model.)

H. A. & J. W. EIFFERT.
FERTILIZER DISTRIBUTER.

No. 419,756.

Patented Jan. 21, 1890.



Witnesses

Frank A. Blair

Wm. Baggett

Inventors

Henry A. Eiffert
Jno. W. Eiffert

By their Attorneys

C. H. Snow & Co

UNITED STATES PATENT OFFICE.

HENRY A. EIFFERT AND JOHN W. EIFFERT, OF RURAL RETREAT, VIRGINIA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 419,756, dated January 21, 1890.

Application filed April 9, 1889. Serial No. 306,573. (No model.)

To all whom it may concern:

Be it known that we, HENRY A. EIFFERT and JOHN W. EIFFERT, citizens of the United States, residing at Rural Retreat, in the county of Wythe and State of Virginia, have invented a new and useful Fertilizer-Distributor, of which the following is a specification.

This invention relates to fertilizer-distributers; and it has for its object to provide a device of this class which may be conveniently attached to any plow or cultivator, which is provided with a wheel at the front end of its beam, from which motion may be transmitted to the dropping mechanism of our said attachment.

The latter consists in the improved construction having the combination of parts which will be hereinafter described, and particularly pointed out in the claim.

In the drawings hereto annexed, Figure 1 is a side view showing our improved fertilizer-distributing attachment applied to an ordinary horse hoe or cultivator in position for operation. Fig. 2 is a vertical sectional view taken longitudinally through our improved fertilizer-distributing attachment. Fig. 3 is a vertical transverse sectional view taken on the line *x x* of Fig. 2. Fig. 4 is a perspective view of the dropping-slide used in connection with the device, and Fig. 5 is a perspective view showing a modified construction of the said dropping-slide.

The same letters refer to the same parts in all the figures.

A designates a box or hopper of suitable dimensions, which may be constructed of wood, sheet metal, or any other suitable material. The said hopper is provided with a hinged cover C, and its sides D D converge downwardly toward each other, so as to guide the contents of the hopper to the chute or spout E, which extends downwardly from the bottom of the hopper. The said bottom is provided with laterally-extended flanges F F, adapted to rest upon the beam or beams of the plow or cultivator to which the device is temporarily attached. Said flanges are provided with downwardly-extending hooks G, having screw-threaded shanks H, upon which nuts I are adjusted for the purpose of clamping the device in position for operation, substantially

as shown in Fig. 2 of the drawings. The downwardly-extending spout or chute E of the hopper registers with an opening J in the bottom K of the latter, and the said chute or spout is preferably rectangular in cross-section. The front and rear sides of the said chute or spout are each provided with two transverse horizontal slots L L, of the entire width of said chute, for the passage of the dropping-slide. The latter, which is designated by letter M, is composed of two sheet-metal plates N and O, which are connected together at their front ends, the lower plate O being bent so as to form an offset or shoulder P, the length of which is equal to the distance between the slots L L in the dropping-chute of the box or hopper. On the shoulder P the said plate is bent to a position parallel to the upper plate N of the dropping-slide.

In operation the dropping-slide is adjusted in the slots L L of the chute E in such a manner as to slide longitudinally in the latter. The upper plate N of the dropping-slide is provided with an opening Q, adapted to register with the opening J in the bottom of the hopper. The lower plate O of said dropping-slide is likewise provided with an opening R, which is out of alignment with the opening Q. It will be seen that when a reciprocating motion is imparted to the said dropping-slide the opening in the upper plate of the latter will be brought intermittently into alignment with the opening in the bottom of the hopper, the contents of which will thus be allowed to drop down upon the lower plate of the dropping-slide, from which it is discharged through the opening R by coming into contact with the front or rear wall of the dropping-chute, as the case may be, by which, owing to the reciprocating motion of the dropping-slide, it is scraped or pushed off the latter, and thence through the said opening R to the furrow.

It may sometimes be found desirable to use a dropping-slide the bottom of which is provided with two discharge-openings R¹ R², as shown in Fig. 5 of the drawings, for the purpose of dropping the contents of the hopper on the rearward as well as on the forward stroke of the dropping-slide.

The front and rear sides of the hopper are provided with bearings for a longitudinal rod

or shaft S, which is provided with a series of radially-extending fingers or agitators T T, to stir the contents of the box and cause it to escape readily through the opening J in the bottom of the same. The front ends of the said longitudinally-sliding shaft S and the dropping-slide N O are connected by pitmen U U with cranks V, formed upon the shaft W of the supporting-wheel X of the hoe or cultivator to which the device is attached. It will thus be seen that when the machine travels over the ground a reciprocating motion will be imparted to the said shaft S and to the dropping-slide N O, thus causing the contents of the hopper to be discharged at regular intervals, the distance between the hills being regulated by the circumference of the wheel and by the number of discharge-openings in the dropping-slide.

Our improved fertilizer-dropping attachment is, as will be seen from the foregoing description, exceedingly simple in construction, and it may be conveniently attached to ordinary farm implements of the kind referred to. The device may also be conveniently used for dropping corn and other seeds by slightly modifying the construction of the dropping-slide, as will be readily understood.

Having thus described our invention, we claim and desire to secure by Letters Patent—

The herein-described improved fertilizer-dropping attachment for plows and cultivators, comprising a box or hopper, the bottom of which is provided with laterally-extending flanges provided with screw-threaded adjusting-hooks, a spout or chute extending downwardly from said hopper and provided with transverse horizontal slots in its front and rear walls, the longitudinally-reciprocating seed-slide comprising two parallel plates connected at their front ends, fitting in the horizontal slots of the spout or chute and having openings out of alignment with each other, and a longitudinally-reciprocating rod mounted in the front and rear sides of the hopper and provided with radially-extending fingers or agitators, substantially as and for the purpose herein specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

HENRY A. EIFFERT.
JNO. W. EIFFERT.

Witnesses:

JOHN W. SPENCE,
E. G. HANKLA.