

J. A. MARLAY & W. WEUSTHOFF.  
Seeding-Machines.

No. 157,015.

Patented Nov. 17, 1874.

Fig. 1.

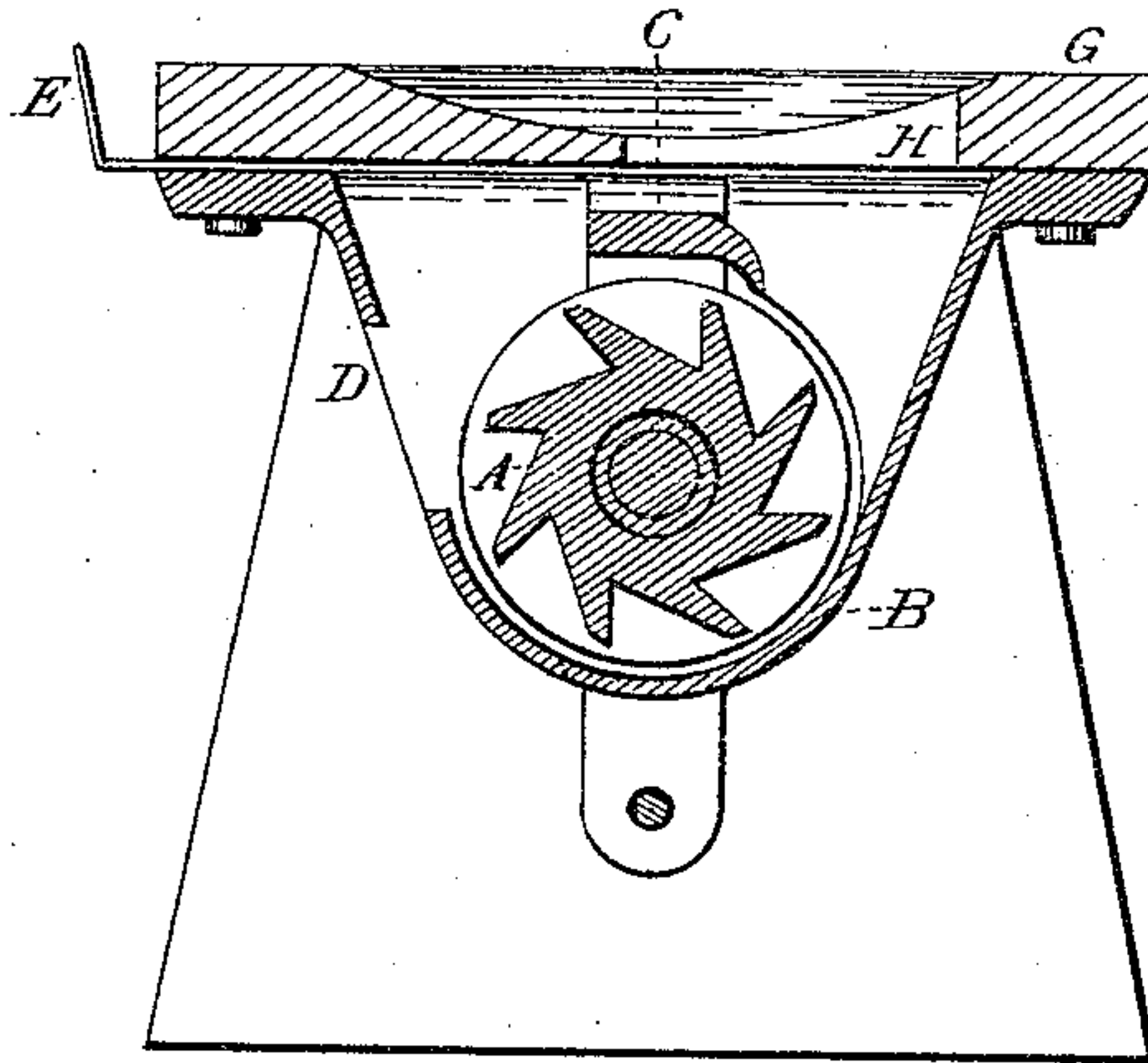


Fig. 2.

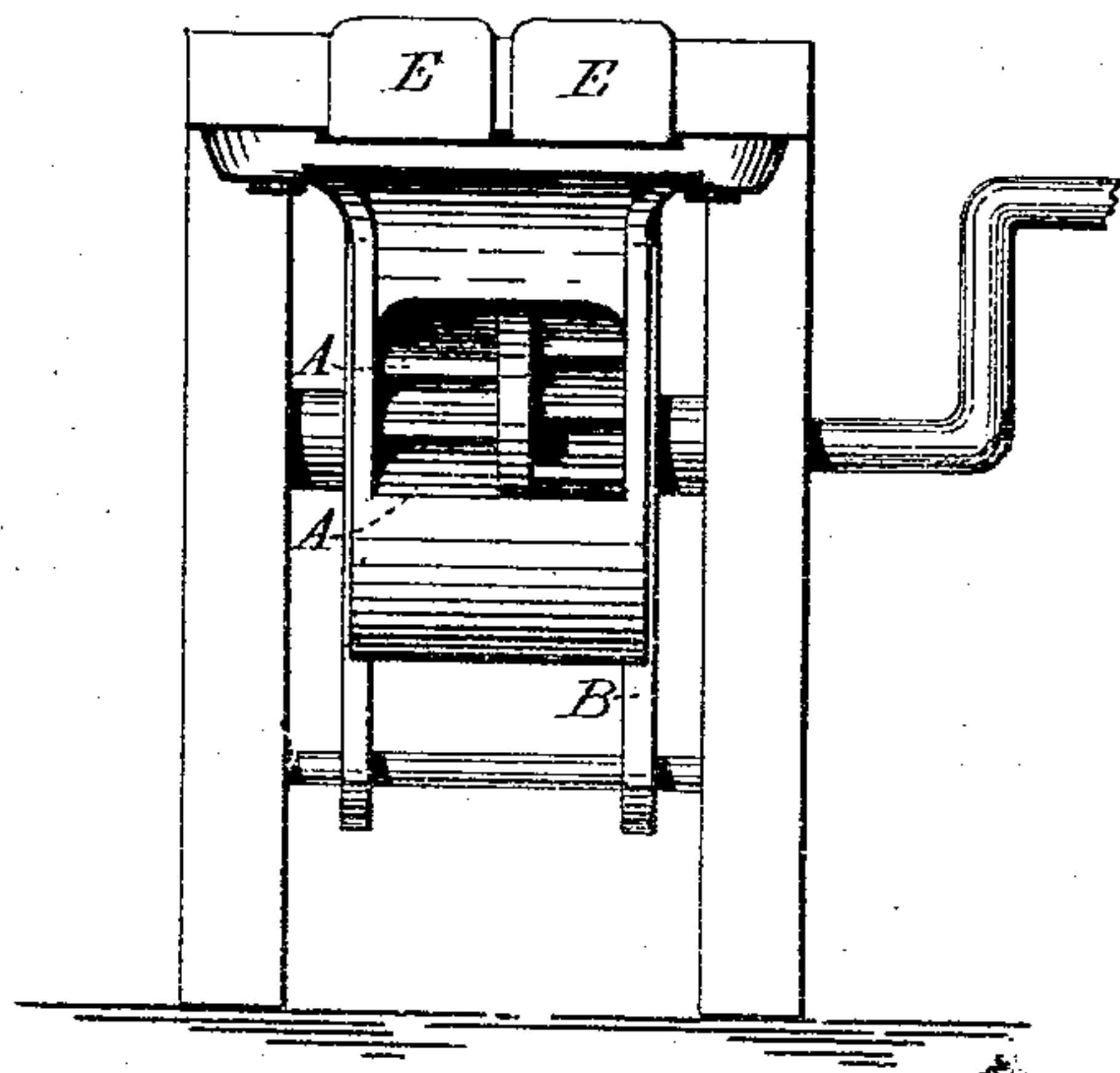


Fig. 3.

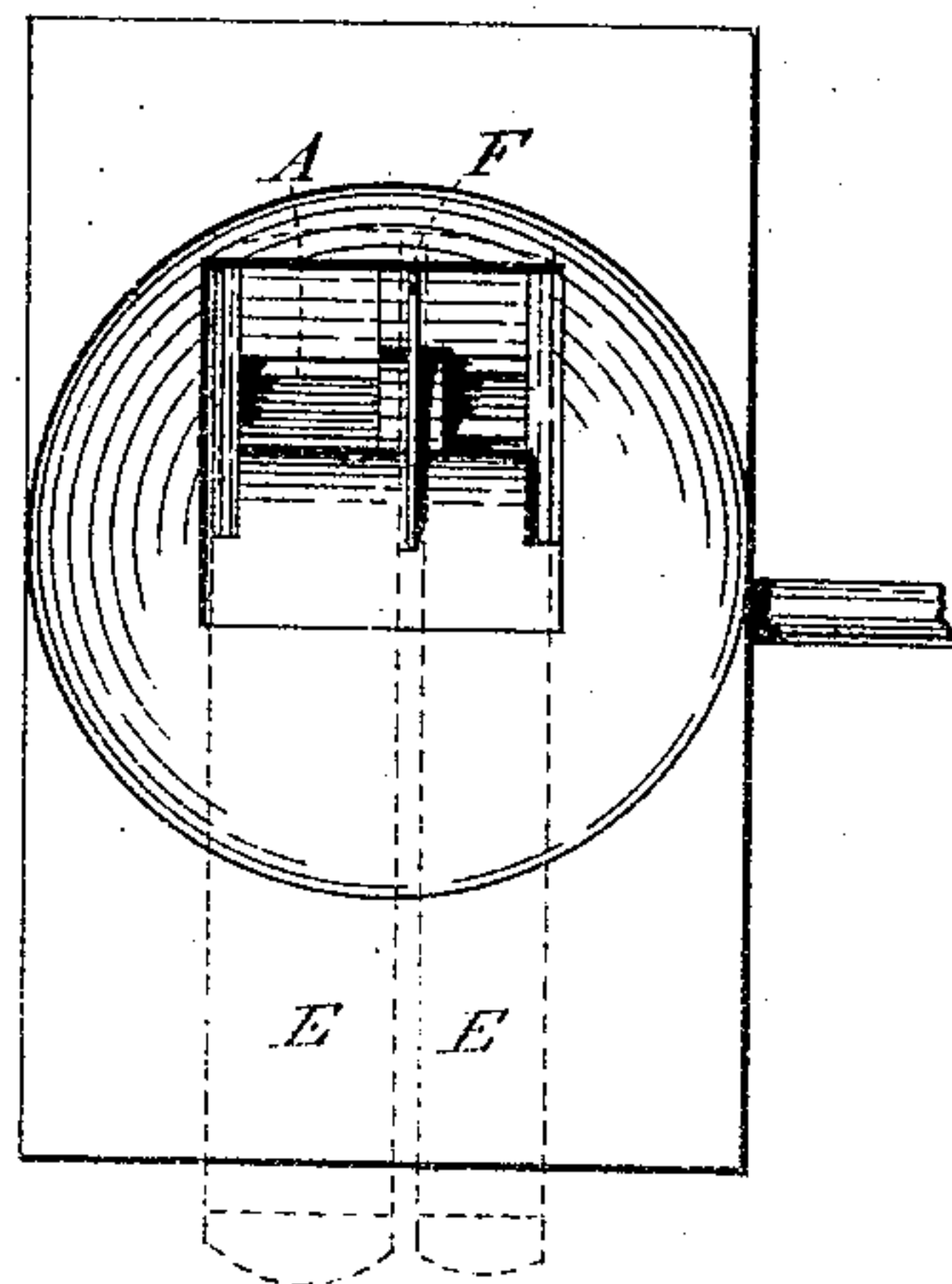
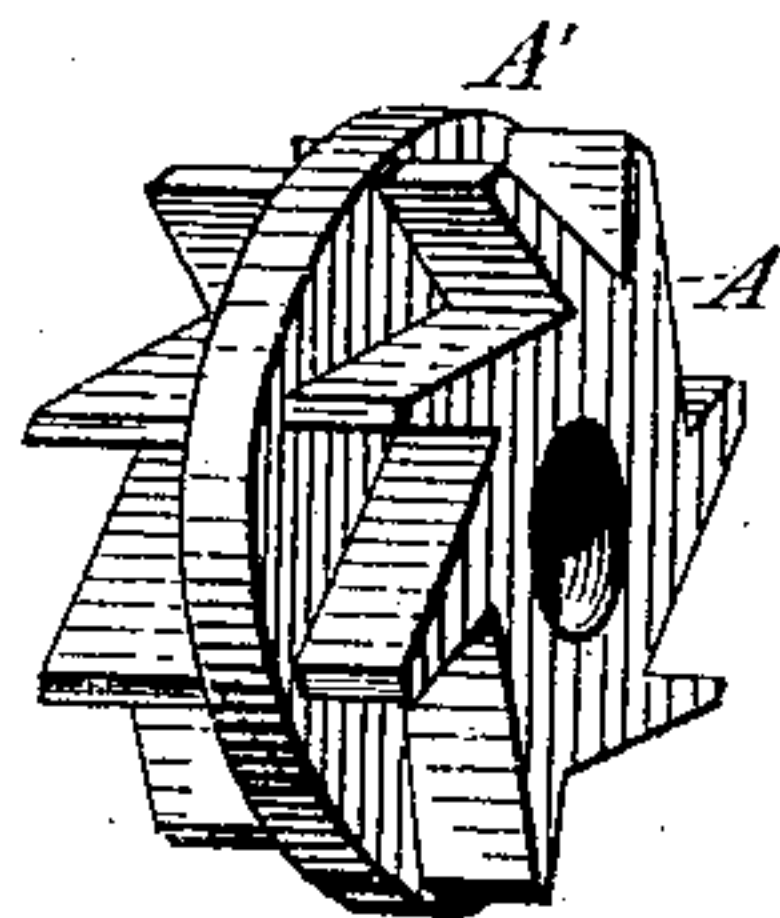


Fig. 4.



Attest:  
C. M. Connell  
Sawdust Gregory

James A. Marlay  
William Weusthoff

Inventors:  
Per Blanchard & Robinson  
Attorneys

# UNITED STATES PATENT OFFICE

JAMES A. MARLAY AND WILLIAM WEUSTHOFF, OF DAYTON, OHIO, ASSIGNORS TO THE FARMERS' FRIEND MANUFACTURING COMPANY, OF SAME PLACE.

## IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. **157,015**, dated November 17, 1874; application filed September 7, 1874.

*To all whom it may concern:*

Be it known that we, WILLIAM WEUSTHOFF and JAMES A. MARLAY, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Seeding-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains 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—

Figure 1 being a central vertical section of an improved seeding-wheel, and showing also the case in which it revolves, with the bottom of the seed-box to which it is attached. Fig. 2 is an end view, showing the bottom of the seed-box, the cup or case of the seeding-wheel, the sectional wheel in position therein, and the shaft upon which it is mounted. Fig. 3 is a plan view, showing portions of the sectional seeding-wheel, the slides which control the admission of grain thereto, and the upper surface of the seed-box; and Fig. 4 is a perspective view of the sectional seeding-wheel, showing the diaphragm which separates the parts thereof from each other.

Corresponding letters denote like parts in all of the figures.

This invention relates to that class of machines which are denominated seeding-machines or wheat-drills; and it consists in the combination of certain of its parts, as will be more fully set forth hereinafter.

The devices for regulating the quantity of grain or seed to be sown upon a given area of ground have usually consisted of different sizes of gear-wheels, placed or to be placed upon the shaft which gives motion to such wheels, and it has been necessary, when using such wheels, to stop the machine when a change was to be made, and place in position different wheels, such as would give to the seeding-wheels the required motion, in order that the desired amount of seed or grain should be distributed on a given area of ground over which the machine should pass.

This invention has for its purpose the dis-

pensing with the gear-wheels above alluded to, in whole or in part, and the substitution of more effective and less expensive devices for performing the function of proper distribution of the grain according to the quantity required.

With the above-named object in view, we construct our seed-wheels A in sections of different lengths in the line of their axis, or it may be of different diameters, so that while revolving at a given velocity they shall deliver to the device which conducts the grain from them to the earth different quantities thereof in a given period of time. In constructing seeding-wheels of this character we make them of such length as will admit of their being divided into the requisite number of sections or parts by diaphragms *a'*, which are of sufficient size to fill the seed-cup, and thus prevent any grain from passing from one compartment of the wheel to another. Each of the sections of the seed-wheel is to be of such length or capacity as to cause it to discharge the requisite amount of the kind of grain which it is designed to have it distribute per acre of ground passed over by the machine, or it may be at each revolution of the shaft which carries the wheels, so that if grain varying in both is to be sown, or if it is desirable to sow upon different fields varying quantities of the same kind of grain, the section of the wheel which will give the required amount can be used, and thus, by dividing the wheel into the proper number of sections, the desired amount of any kind of grain or seed can be distributed without the use of a large number of gear-wheels, such as are at present required, or without any costly equivalent for such wheels. These seed-wheels are to be placed in a cup or case, B, which is of the required width, and otherwise of the requisite dimensions to receive them, it being secured to the under side of the grain-box in the usual manner, and provided with a guide, C, for directing the grain to the wheel in such a manner that it may be carried under its axle, and to the outlet-aperture D of the cup. It will be observed that the buckets of the wheels A are of peculiar construction, they being placed



tangentially to a circle drawn around the hub of the wheel at their inner portions, or in some other similar manner, so that in carrying the grain or seed to the discharge-opening in the case, such grain shall not be broken by the action of said buckets, but will be delivered to the tubes which conduct it to the hoes, or to a distributor for sowing it broadcast in an unbroken stream.

In order that the grain in the seed-box may be directed to the proper section of the seed-wheel, there is placed between the bottom of the box and the upper surface of the cup a series of slides, E E, equal in number, and corresponding in width with the sections of the wheel, they being so arranged that either can be opened and the rest closed at any time. Connected to the guide C, or to the case B, there is a partition, F, which prevents the passage of the grain from one compartment to the other, while it remains above the diaphragm of the seeding-wheel, it being arranged directly over such wheel, as shown in Fig. 3. It will be understood that the seed-box is to be placed upon or above the bed G, as shown in Fig. 1, and that it may be of such form as to best direct the grain to the opening H in its lower surface.

One very decided advantage due to this

form of seeding-wheel, which has not heretofore been alluded to, is, that by placing in the seed-box the requisite partitions, different kinds of grain, or grain and other kinds of seed, may be sown in juxtaposition to each other, or they may be sown broadcast, and mixed as sown.

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

1. The feeding-wheel A, constructed with projecting flanges or diaphragms, substantially as described, and in sections of different lengths, for the purpose of giving to each section the capacity to deliver different amounts of grain in a continuous stream at each revolution of the driving-axle, substantially in the manner described.

2. The combination of the sectional seed-wheel A, seed-cup B, series of slides E E, partition F, and guide C, when arranged substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own invention, we affix our signatures in presence of two witnesses.

JAMES A. MARLAY.

WILLIAM WEUSTHOFF.

Witnesses:

J. S. MILES,

THOMAS J. KEATING.