

C. GRABE.
CORN PLOW OR CULTIVATOR BLADE.
APPLICATION FILED JAN. 11, 1904.

Fig. 1.

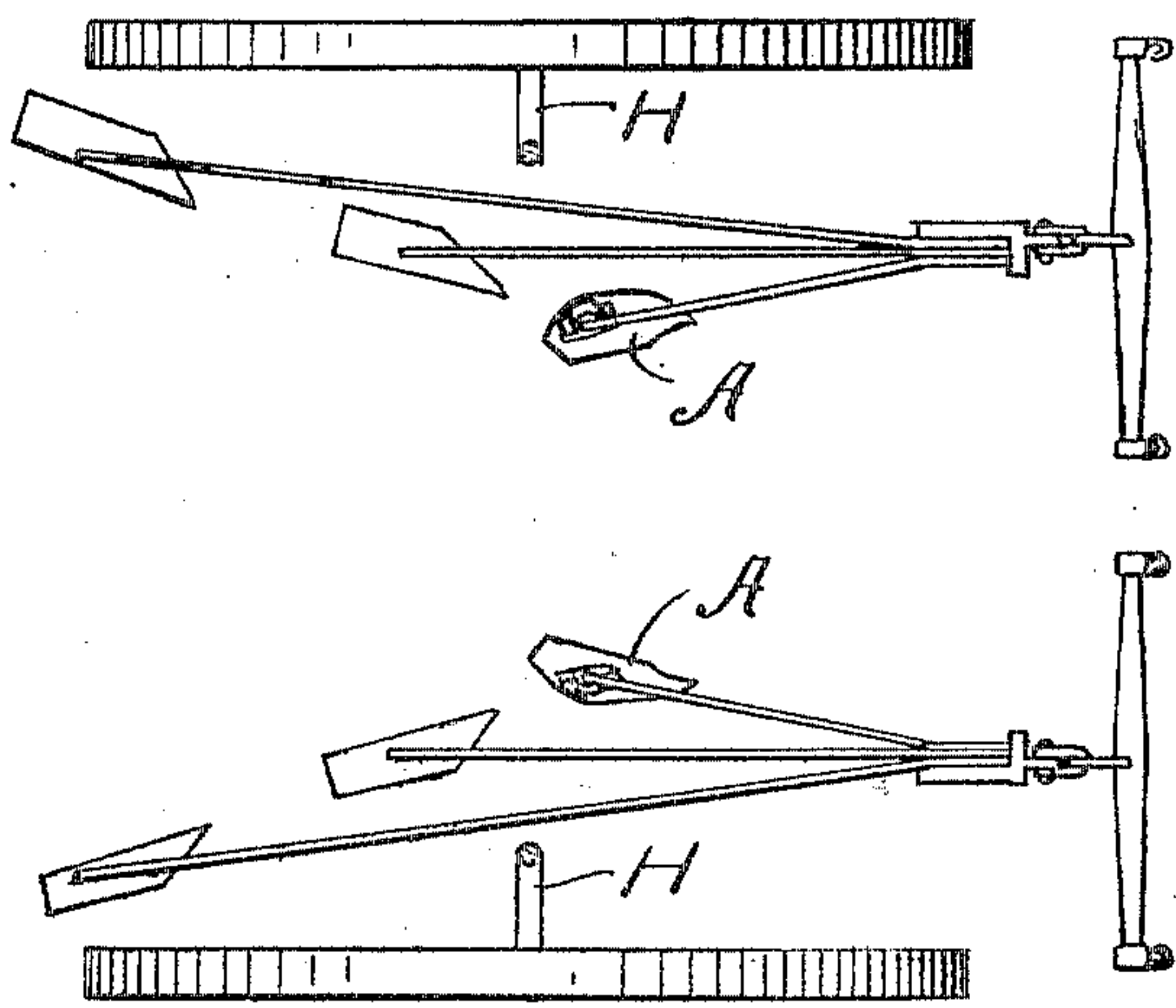


Fig. 2.

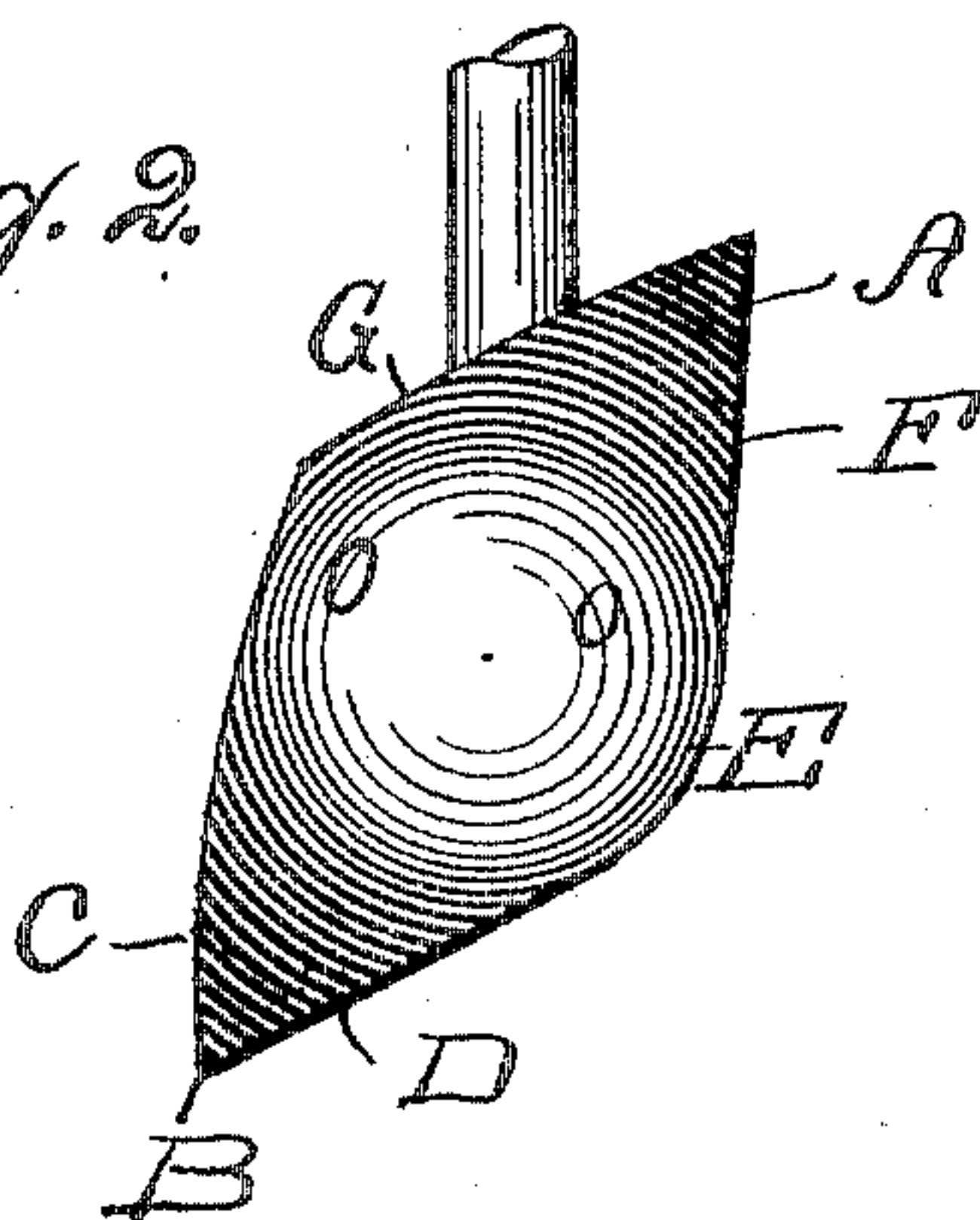


Fig. 3.

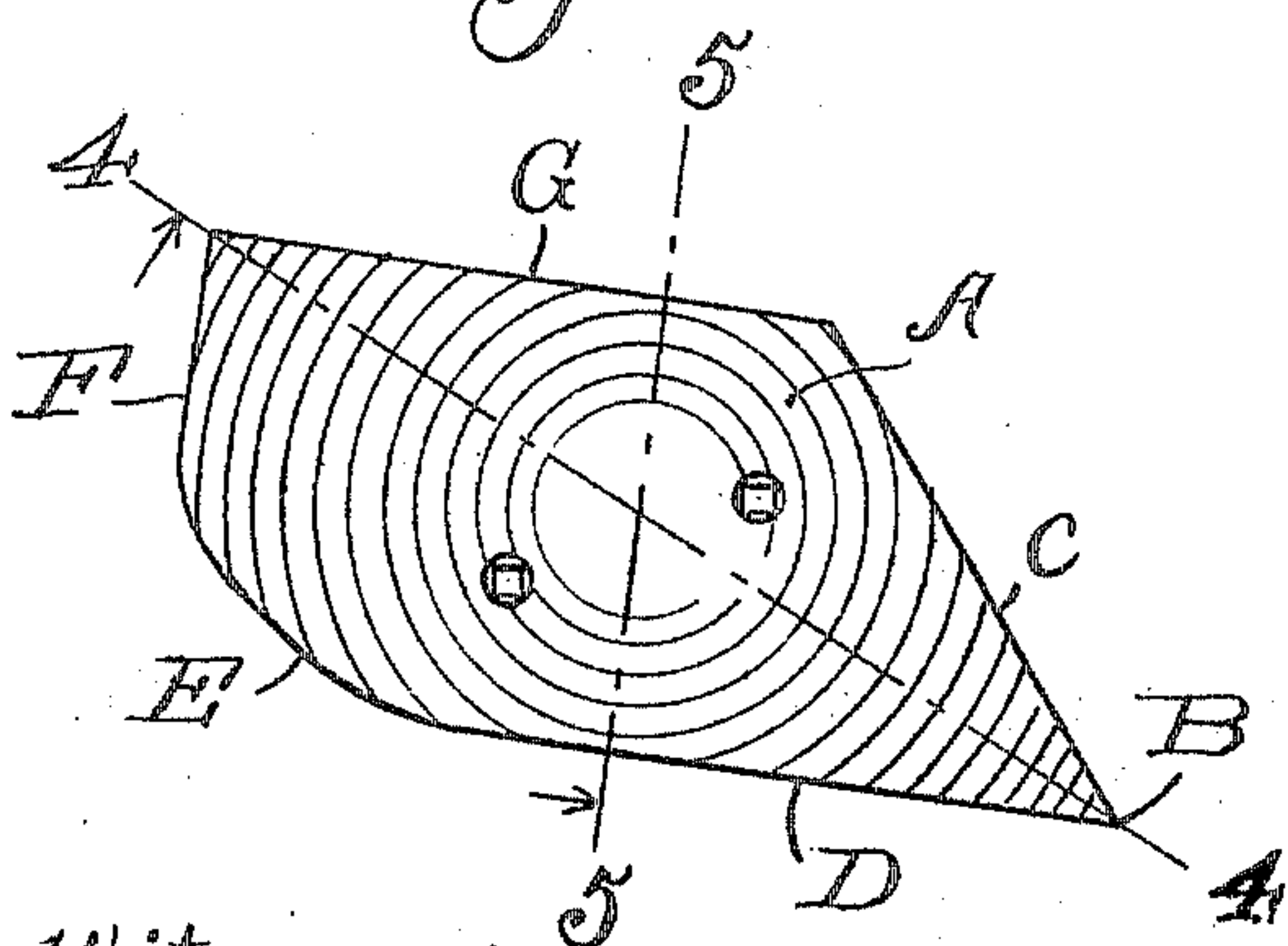
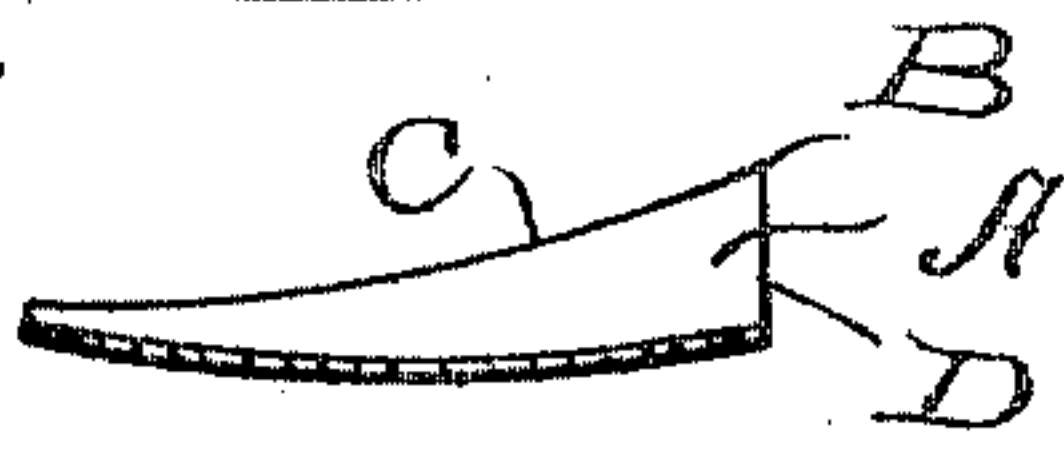


Fig. 4.



Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

CONRAD GRABE, OF SOLLITT, ILLINOIS.

CORN-PLOW OR CULTIVATOR BLADE.

No. 797,729.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed January 11, 1904. Serial No. 188,623.

To all whom it may concern:

Be it known that I, CONRAD GRABE, a citizen of the United States, residing at Sollitt, in the county of Kankakee and State of Illinois, have invented certain new and useful Improvements in Corn-Plow or Cultivator Blades; 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 appertains to make and use the same.

My invention relates to a novel construction in a blade for plows or cultivators particularly adapted for use on so-called "corn-plows," the object being to provide a blade which will take the earth adjacent a row of corn and bank the same up on the sides of the hillock without coming in contact with or in any way injuring the roots of the corn; and it consists in the features of construction hereinafter described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a plan section of a corn-plow provided with two blades constructed in accordance with my invention. Fig. 2 is a view in front elevation of a blade constructed in accordance with my invention in operative position. Fig. 3 is a side elevation of the blade. Figs. 4 and 5 are sections of same on the lines 4 4 and 5 5, respectively, of Fig. 3.

As before stated, my said blade is particularly designed for use in connection with the so-called "corn-plows" for the purpose of banking the earth over the roots of the corn. In packing this it is desirable that such blades should act very smoothly and be maintained out of contact with the roots of the corn, and, furthermore, such blades should act to more or less pack the earth around such roots, so as to cause it to remain in place and more readily retain moisture. To this end my blade A consists of an elongated sheet of metal, which is substantially a section of a sphere of very large diameter. At its forward end said blade A terminates in a sharp point B by the meeting of the forward and lower edges C and D at an acute angle. The said lower edge D extends at an angle of about ten degrees to a horizontal plane, and at its rear end terminates in an elongated curve E, which emerges into the substantially vertical rear edge F. The up-

per edge G extends substantially parallel with the lower edge of the blade. The said blade is set at an acute angle to the direction of motion of the carriage H of the plow or cultivator, and the said corner B thereof projects below the surface of the soil and by its curvature raises the earth almost vertically and throws same over upon the side of the hillock of corn. The said blade is further so arranged relatively to the frame that its upper edge is tipped over so as to overhang the lower edge, thereby giving it a further tendency to bank up the earth and causing the rear edge thereof to brush against the side of the hillock to thus pack the earth smoothly against the latter. The said blades are made right and left, so that one of same operates on each side of the hillock, and to further bank up earth against the latter the carriage H carries four blades of ordinary construction, which follow up the said blades A and bank the earth more fully around the base of the hillock.

My said device is very advantageous, inasmuch as the sharp edges of the blade remain entirely out of contact with the roots and pack up the earth very firmly against the same, at the same time smoothing the sides. This has the advantages, as before stated, of enabling moisture to be more readily retained and also prevents the earth from rolling down after having been banked up, owing to the earth being packed or pressed, as is usual with the cultivators or corn-plows now generally used. The remaining blades act to reinforce the said hillocks and provide further earth in the path of the blade A to be banked up by the latter at each succeeding operation. The action of said blades A is slightly similar to that of a moldboard of a plow; but its action differs from the latter, inasmuch as it does not completely turn the earth over, but simply acts to raise the same.

I claim as my invention—

As a new article of manufacture, a plow-blade substantially in the form of a section of a hollow sphere, concave from front edge to rear edge and from top edge to lower edge, the front edge and lower edge meeting at acute angles and forming a sharp point at the extreme lower end of the front edge and extreme forward end of the lower edge, the top

edge of the blade being parallel with the lower edge and said top and lower edges extending at an angle of approximately ten degrees to a horizontal plane, and said rear edge of the blade having its upper portion substantially vertical and its lower portion gradually curved to its termination with the lower edge.

In testimony whereof I affix my signature in presence of two witnesses.

CONRAD GRABE.

Witnesses:

RUDOLPH WM. LOTZ,
F. SCHLOTFELD.