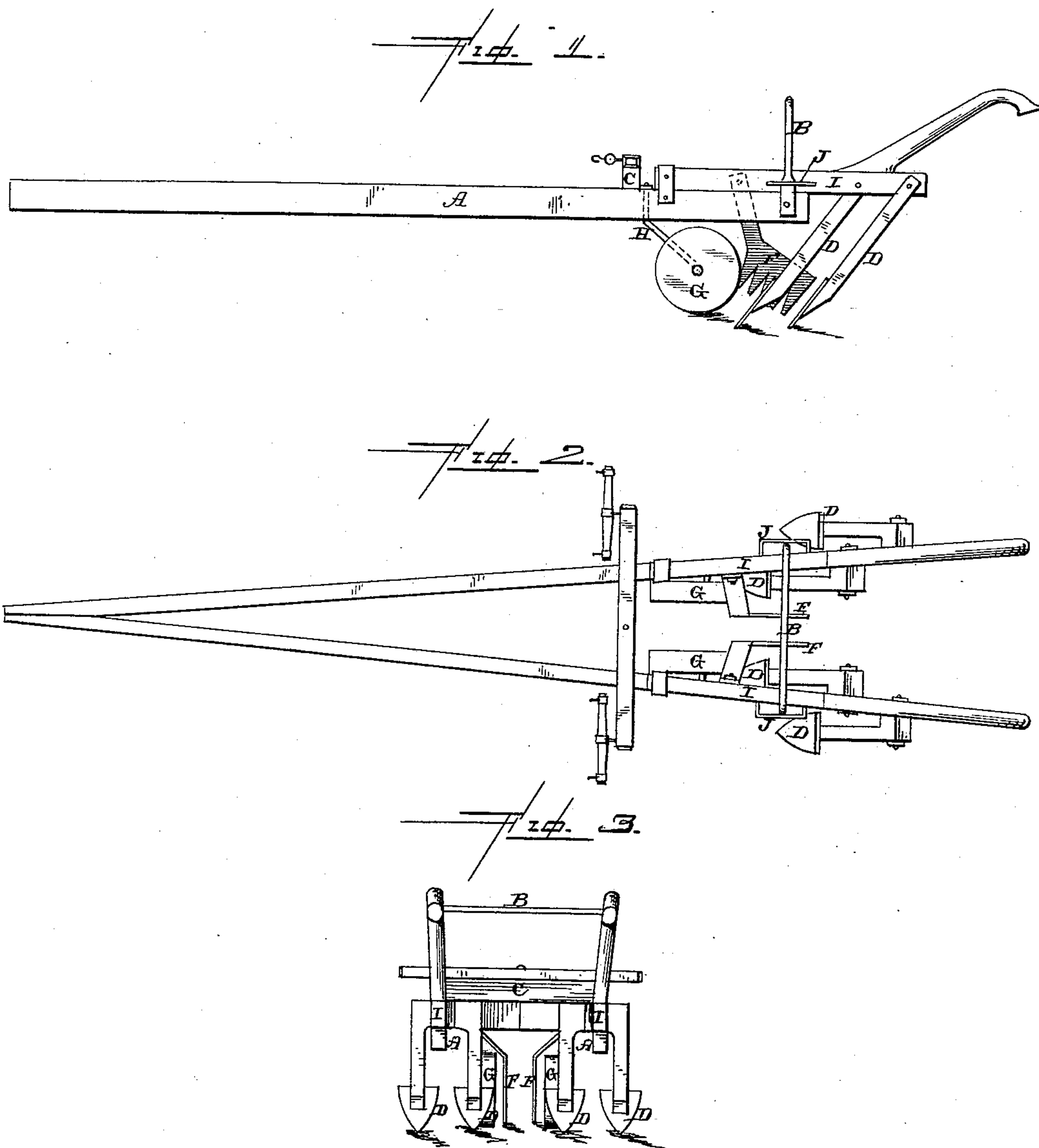


(No Model.)

D. W. BOVEE.
CULTIVATOR.

No. 329,707.

Patented Nov. 3, 1885.



-WITNESSES.-
A. F. Gardner
Jno. E. Prosperi

-INVENTOR-
D. W. Bovee,
per J. A. Lehmann,
Atty.

UNITED STATES PATENT OFFICE.

DAVID WILLIAM BOVEE, OF RICHLAND CENTRE, WISCONSIN.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 329,707, dated November 3, 1885.

Application filed September 2, 1885. Serial No. 176,027. (No model.)

To all whom it may concern:

Be it known that I, DAVID W. BOVEE, of Richland Centre, in the county of Richland and State of Wisconsin, have invented certain new and useful Improvements in Cultivators; 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 drawings, which form part of this specification.

My invention relates to an improvement in cultivators; and it consists in the combination of the tongue, which forms the entire frame, pivoted wheels, and the plow-beams, which are pivoted upon the tops of the rear ends of the tongue, and which beams have no other than a vertical movement, as will be more fully described hereinafter.

The object of my invention is to construct a wheel-cultivator in which the axle is entirely dispensed with, and in which the wheels are free to follow any movement of the team, and to give the beams no other than a rising and a falling motion, in contradistinction to the universal motion which is usually given to them.

Figure 1 is a side elevation of a cultivator embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a rear view.

A represents both the tongue and frame, and which is formed of two beams or bars of wood, which are rigidly secured together at their front ends, and which are separated a suitable distance at their rear ends, and rigidly connected together by the bent metallic rod B and the wooden cross-bar C, upon which the double-tree or other device for attaching the animals is secured.

The rear ends of the two parts which form the tongue and frame are separated a sufficient distance apart to bring the cultivators D and the guards F within any required distance of each other. This frame or tongue is supported upon the two wheels G, which are journaled upon the bent rods H, and which rods turn freely in any direction, so as to allow the

wheels to follow every movement of the team. The tongue and frame is supported at its front end by the team, and at its rear end by these two wheels and the cultivators. Upon the top of the rear part of the frame or tongue are pivoted the cultivator-beams I, which beams extend parallel with the two parts of the tongue and frame, and which beams are provided with suitable guides, J, which catch over the sides of the bent metallic rod B, so as to act as additional means in keeping the beams always in line with the tongue or frame to which they are connected. These cultivator-beams, instead of being allowed a free universal motion in the usual manner, are here given a vertical movement only, as it is intended to guide these beams wholly by the movement of the tongue and frame. Each beam is provided with two or more standards and a screen or guard, as here shown.

By dispensing with the usual axle and forming the tongue and frame of only two rods, and then supporting them upon wheels which can turn freely in any direction, a very cheap, simple, and efficient cultivator is produced. This construction also enables the usual universal joint, which has been regarded as necessary, to be dispensed with.

Having thus described my invention, I claim—

1. The combination of the combined tongue and frame with the wheels, which can freely follow the movements of the team, and the beams pivoted directly to the tongue and frame, and having only a vertical movement, substantially as described.

2. The combination of the beam and frame united together by means of the rod B and cross-piece C, the swinging wheels, and the cultivator-beams pivoted upon the top of the tongue and frame, and having only a rising and falling motion, substantially as specified.

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

DAVID WILLIAM BOVEE.

Witnesses:

C. P. DORLAND,
E. T. PORTER.